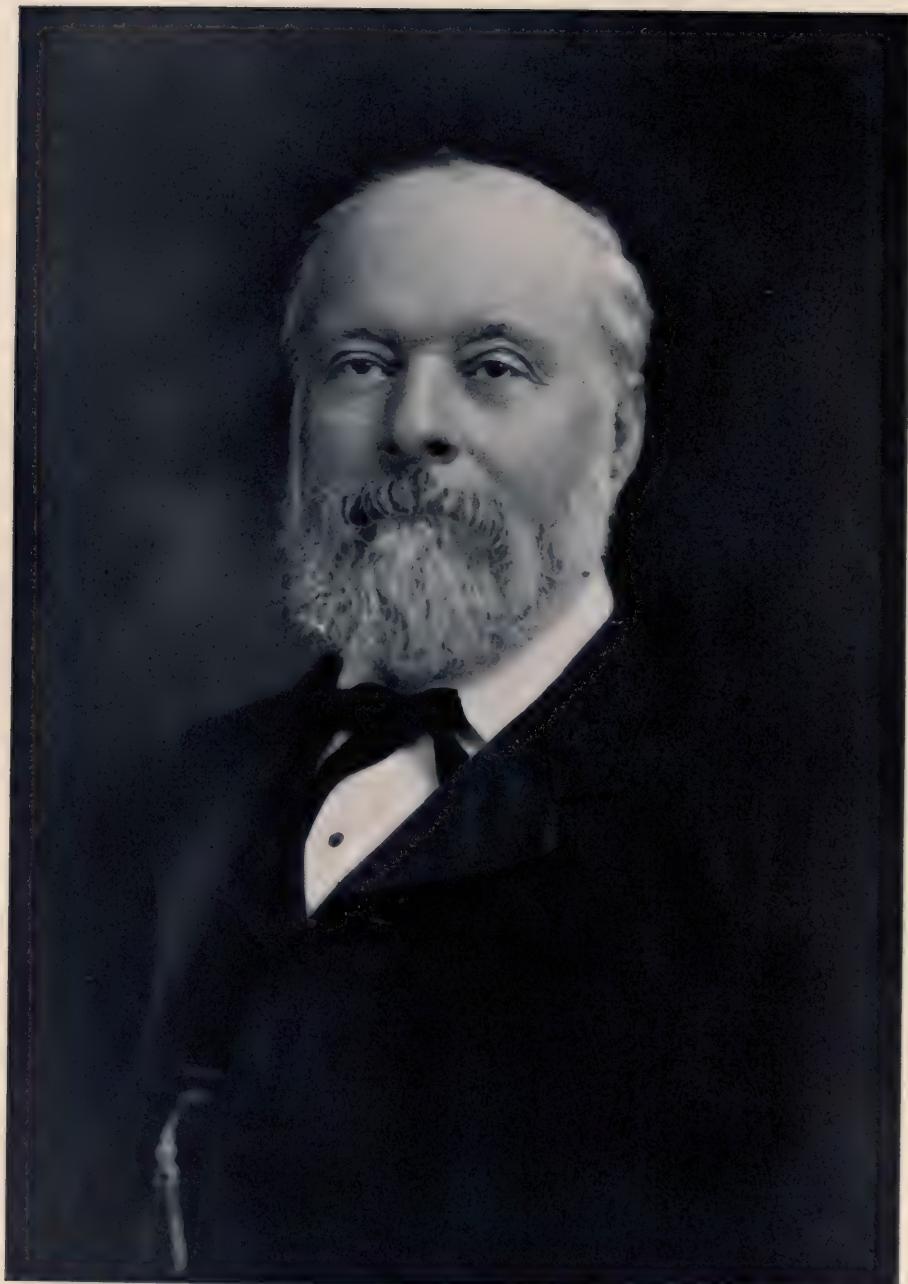




The
Honorable
Peter
White



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THE HONORABLE PETER WHITE

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The Honorable Peter White

A BIOGRAPHICAL SKETCH OF THE LAKE
SUPERIOR IRON COUNTRY

BY

RALPH D. WILLIAMS

WITH NUMEROUS ILLUSTRATIONS

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This book is respectfully dedicated
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PREFACE.

This book is unlike any other in that it is really a romance though it deals with facts. There is no statement in it that is not result of patient research. It has seemed best to write it while it was yet possible, for the information which it contains has been secured at first hand. The industrial supremacy of the United States among nations is due wholly to the purity, abundance, cheapness of mining and low rate of transportation of Lake Superior ores. There are living chronicles today of the early development of this region—men, who as boys went into that country to develop it, then an unbroken wilderness—and from their lips the story has been secured. Obviously if not written now it could not, in a little while, be written at all. So vast indeed has been the progress since that it seems incredible that it should have occurred within the lifetime of one man. Yet Lake Superior, in a commercial sense, is only fifty years old. The beginnings, therefore, of this great iron industry are historically important and are of interest to every citizen in the United States, for there is not a man or woman today living who has not been, directly or indirectly, benefited by the great mineral wealth of the Lake Superior country and the labor of winning it and working it into the arts.

It has seemed just also to incorporate the work under the title which has been given to it. Peter White, as a boy, assisted in stripping the first iron mine: he wrote the bill of lading of one of the earliest, if not the first, shipment of ore—only six barrels, it is true, but how prodigious has the stream grown since; and moreover he is still active in this great industrial theater. The first shipments of ore are traced through the furnaces, refractory, rebellious and not easy to smelt, because the early furnaces were not adapted to it. The painful hauling of the ore to the shore of the lake in sleighs in the winter time and along a plank road in the summer time is depicted; the equally painful portage over the rapids of St. Mary's river, to be loaded again upon tiny vessels; the tedious and expensive loading and unloading by wheelbarrows and gang planks; until in the course of time the portage gives way to the canal, the plank road to the most solidly constructed railways in the world, the wheelbarrows to the great docks with their pockets and chutes

and the equally great automatic unloading machines; and the tiny vessels to a fleet of ships so large in size that ocean liners scarcely rival them and so numerous that over a waterway 1,000 miles long one is never out of sight of the other—and all this within a single lifetime. The record of the Lake Superior iron ore output is noted below by years. It is given because it is responsible for the great commercial panorama that is to be seen any day on the great lakes of North America and for the widespread prosperity that the iron and steel trade of the United States has enjoyed:

Year.	Tons.	Year.	Tons.
1855.....	1,449	1880.....	1,908,745
1856.....	36,343	1881.....	2,307,005
1857.....	25,646	1882.....	2,965,412
1858.....	15,876	1883.....	2,352,840
1859.....	68,832	1884.....	2,518,693
1860.....	114,401	1885.....	2,466,642
1861.....	49,909	1886.....	3,565,144
1862.....	124,169	1887.....	4,762,107
1863.....	203,055	1888.....	5,063,877
1864.....	243,127	1889.....	7,292,643
1865.....	236,208	1890.....	9,003,725
1866.....	278,796	1891.....	7,071,053
1867.....	473,567	1892.....	9,072,241
1868.....	491,449	1893.....	6,065,716
1869.....	617,444	1894.....	7,748,312
1870.....	830,940	1895.....	10,429,037
1871.....	779,607	1896.....	9,934,828
1872.....	900,901	1897.....	12,404,574
1873.....	1,162,458	1898.....	14,024,073
1874.....	919,557	1899.....	18,251,804
1875.....	891,257	1900.....	19,059,393
1876.....	992,764	1901.....	20,593,537
1877.....	1,015,087	1902.....	27,571,121
1878.....	1,111,100	1903.....	24,289,878
1879.....	1,375,091	1904.....	21,822,839

PROLOGUE.

EARLY HISTORY OF LAKE SUPERIOR.

THIS is the story of a man's life. But what a life it has been and is.

The tale will be told as simply and as succinctly as possible, but if there be digressions in the narrative it will be because the theater in which the life has been spent is so stupendous as to compel them. When a man's life is linked with a country it is impossible to chronicle it without chronicling the history of the country. In all new countries there is one man who typifies the region; and while gigantic figures have moved across the face of this marvelous panorama there is none so singularly attractive as he who is the central figure of this rapid sketch. For he is the very embodiment of the spirit of the country in which he lives. Its sheer ruggedness is in his frame as though out of the metal-shot soil he had absorbed the iron of his constitution. If you will take any man who has lived close to nature you will find the most splendid specimen of manhood to be found anywhere. Nature is open, frank and earnest, sometimes terribly so, but always genuine. The men who lie closest to her have these self-same attributes. Their simplicity is charming. Take a man whose life has been with the elements and he is invariably without guile. The men who opened up the American frontier were these sort of men. Buffalo Bill and Wild Bill are examples. They stood for law and order and would have it at the price of life. They were the advance guard of civilization. They made it possible for decent men and women to live on the edges of the wilderness. It is a pity that the yellow-backed novelist has been their only biographer: but some day the white light will beat upon them and will reveal them as they really are.

While this a frontier story there is neither blood nor thunder in it. It is not lacking, however, in the element of romance. Indeed it would be impossible to find in real life a more romantic tale. As a work of imagination there is nothing comparable to the Count of Monte Cristo in the realm of romantic fiction. One is held in thrall by the unlimited wealth of this creature of fiction. Money is the talisman to which all doors open and

to which all achievements are possible. It is easy, therefore, to comprehend the fascination which this story possesses. There is but one other attribute open to the romancist which occupies a like hold upon the mind—and that is the possession of unconquerable physical strength. Hugo utilized this in his character of Jean Valjean. What then is to be said of this story when its base has a wealth which is far greater than that which Dumas could possibly have credited to Edmond Dantes and when the very country breeds men whose powers of endurance rival those of Hugo's hero? Has it not the elements in it out of which to weave the fabric of the great American novel so long expected and so long delayed?

For the story is distinctly American. Indeed there is nothing more distinctly American, though it might have been a Canadian tale had it not been for the foresight of the great Benjamin Franklin, who deflected his pencil a bit on a certain memorable occasion and caused the upper peninsula of Michigan to be included within the American boundary. Franklin did a great many things for his country which dwell more or less freshly in the memory of posterity; but this one thing, long since forgotten, if indeed ever adequately comprehended, was in a material sense the greatest of them all. It was the vague report of mineral wealth in that unbroken region which caused his pencil to make the almost imperceptible deflection upon the map.

For long years, for centuries, it had been known that that region was rich in metallic substances. Copper was the one metal known to exist in great quantities. However, the world may as well not have known, for it never took advantage of the information. The country was too vaguely fixed in the imagination to have a commercial value. As early as 1636 La Garde, in a little book published in Paris, made known the existence of copper in that far country by the unsalted seas. Boucher in his history, published in 1640, asserts that "there are in this region mines of copper, tin, antimony and lead." He also refers to a great island, fifty leagues in circumference, (which is doubtless the one now called Michipocoten) where "there is a very beautiful mine of copper." He also speaks of a large ingot of copper, weighing 800 lbs. and from which the Indians cut off pieces with their axes after having softened it by fire.

The Jesuits, too, in the recital of their missionary work, which extended from 1632 to 1672, frequently speak of the existence of copper. Claude Allouez, whose contributions are the most valuable on the subject, visited the Lake Superior region in 1666. He makes mention of a large mass of native copper which was plainly visible near the shore of the lake and relates that the Indians who passed that way, cut pieces from it. Indeed

He says that the Indians frequently had pieces of copper weighing from 10 to 20 pounds and that they held the specimens in superstitious awe. A map of this region was drawn by these zealous missionaries in 1672, which, to this day, is electrifying in its accuracy. However, the observations of the Jesuits are important from the historical standpoint only; in the commercial development of the region they play no part whatever. It would be interesting to pursue them further were it not for the fact that the present story has to do with a personality whose blood still runs red in his veins.

The first attempt at development was made as the result of an account of the mineral deposits made by Capt. Jonathan Carver, who visited Lake Superior in 1765. His story so captivated Alexander Henry, an Englishman of venturesome spirit, that he organized a company to exploit the resources of the region. Many of the nobility went into the venture and even the King of England became a stockholder. As a matter of record it may be noted that the partners in England were His Royal Highness, the Duke of Gloucester, Mr. Secretary Townsend, Sir Samuel Tucket, Mr. Paxter, consul of the Empress of India, and Mr. Cruickshank; in America, Sir William Johnson, Mr. Bostwick and Mr. Alexander Henry. Henry and his comrades built a barge at Point Aux Pins and laid the keel of a sloop of 40 tons. They sailed in May 1771 for the "island of yellow sand" and found several veins of copper and lead. Upon their return to Point Aux Pins they erected an air furnace. The assayer reported on the ores which they collected that the lead ore contained silver in the proportion of 40 ounces to the ton, but the copper ore a very small proportion indeed. They were accompanied on the next expedition by Mr. Norberg, a Russian gentleman acquainted with metals who found a loose stone weighing eight pounds of a blue color and semi-transparent. This he later carried to England where it assayed in the proportion of 60 pounds of silver to a hundred weight of ore. It was deposited in the British Museum. Henry's later researches appear not to have been crowned with success. His explorations gave such little promise of substantial returns that his English partners refused to further contribute to the enterprise. This adventurous spirit then undertook that series of exploits which have inseparably linked his name with the history of Mackinac island and which makes his character a striking one both for the novelist and dramatist.

Incredible as it may seem, this region, richer in actual value to mankind than any other section of this great round globe, lay dormant for

nearly a century after Henry's luckless venture. The world, lustful for gold as it is, apparently forgot all that had been written about it. Even Michigan, when it was admitted into the union as a state in 1836, protested against the inclusion of the upper peninsula within her borders. She almost went to war over it.* The Lake Superior region, in a commercial sense, is only fifty years old. This is an incontestable but stupendous fact. It brings its entire development within the life of our subject and is the very circumstance which gives to his career its magnificent setting. No other man has moved so continually upon such a stage. It is simply Titanic.

Posterity will forever owe a debt to Dr. Douglas Houghton for the work which he did as the first of Michigan's state geologists. He traversed the south shore of Lake Superior during his investigations five times in a birch bark canoe, and his practiced eye saw at once the great mineral wealth that was awaiting the hand of man. He stated his observations in his report to the government in the most guarded language, for while he recognized as a scientist the wealth of the region, he was conscious also as a practical man of the hazard of its development. He had no mind to lure men to their ruin. The peninsula in those days was a

* When the union was formed the northwest territory, embracing the present states of Ohio, Indiana, Illinois, Wisconsin and Michigan belonged to Virginia. Virginia ceded the territory to the United States upon the conditions made in the ordinance of 1787. Among these conditions was one that the southern boundary line of Michigan was to run through the southerly band of Lake Michigan due east to Lake Erie or the Maumee river. Consequently the territory of Michigan embraced Toledo and a ten-mile strip south of the present boundary of the state. When Michigan formed its constitution it fixed the same boundaries that it had as a territory, established by the ordinance of 1787. Ohio then demanded that Michigan move her southern boundary ten miles further north that she might have the Maumee Bay and opposed Michigan's admission to the union until this was done. Hence the Toledo war, Michigan's troops actually marching in arms to the Ohio border to take forcible possession of this strip. The upper peninsula had been set off to the territory of Wisconsin. To gratify Ohio, avoid a military conflict and to give the Michigan senators (Norrel and Lyon) and its representative (Crary) their seats Congress provided for a convention of delegates to be duly elected by the people of Michigan, to which it submitted the question of giving to Ohio the coveted ten-mile strip and of receiving the upper peninsula in exchange. The convention assembled at Ann Arbor and emphatically rejected this proposition. The upper peninsula, certainly the most valuable portion of the state in natural wealth, was terra incognita at the time and was considered of little or no value. Besides the loss of the harbor of Lake Erie (Maumee Bay), the convention deemed that a surrender to the demands of Ohio would be a palpable violation of the ordinance of 1787. The action of this legal convention was considered final. A few politicians, however, who were impatient to fill the offices to which they had been elected under the state constitution issued without legal authority a call for a popular election of delegates to another convention to act upon the proposition of Congress. There were no legal boards of election then and the qualifications of electors was but little regarded. Consequently the vote was large and nearly all one way in favor of submission. The state rights people, or those opposed to submission, regarded this election as of no validity but the persons chosen at this election met and declared that the people of Michigan had repented of their previous action and humbly accepted the proposition made by Congress. Upon this action Michigan was admitted into the union and the upper peninsula was thus annexed to the state.

veritable Klondike from the standpoint of inaccessibility. His report of 1841 was careful, painstaking and conservative, but notwithstanding its tone men flocked to the region by thousands. Dr. Houghton had foreseen this condition and his heart was wrung for them, for he knew that only a tithe could possibly hope to win success. Indeed claims were abandoned as soon as they were located and in a few years most of the prospectors had left the country. Dr. Houghton's report was largely devoted to copper. Of iron he makes only the merest mention, which is not surprising as his investigations were confined to the shore of the lake and none of the iron deposits come within seven miles of it. Dr. Houghton was an extraordinary man of fine moral and mental fiber. His geological observations of the region are today universally accepted, though it took the later generation of geologists several years to come to his conclusions. The rocks are very old. They precede organic life. They are the result of a great cataclysm and however deep one descends into the earth there is no heat.

Houghton's career, brief as it was, was most remarkable. He was born in Troy, N. Y., Sept. 21, 1809, and graduated at the Van Rensselaer school in that city in 1828. He was soon afterwards appointed assistant professor of chemistry and natural history in that institution then under the control of Professor Eaton. In 1830 Gen. Cass and Major Whiting of Detroit applied to Prof. Eaton for a person qualified to deliver a course of public lectures on chemistry and geology. Eaton opened a door of his laboratory and summoned Houghton, calling him by the familiar name Douglas. He was so young and so slight that they could hardly believe Prof. Eaton to be in earnest. Young Houghton did not hesitate, however. He accepted the invitation and landed in Detroit with exactly ten cents in money. The lectures were so popular that he was persuaded to make Michigan his home. Small in person, a mere boy in appearance, shy and awkward though brave and resolute, it is remarkable that he should so quickly have won the esteem of the distinguished men of the state. He had hardly opened his office in Detroit when he was appointed by the secretary of war as surgeon and botanist to Schoolcraft's expedition to the source of the Mississippi. Within a period of fifteen years he had been elected mayor of Detroit for two terms in succession by large majorities. He was tendered the presidency of the Michigan university before he was thirty years old.

The work with which this sketch is associated began in 1837 when he was appointed state geologist. It was he, in fact, who nurtured the

scheme for a geological survey of Michigan. He proposed to himself a scheme which would include four departments, namely, geology, zoology, botany and topography, each having an official head and all united under the general guidance of the state geologist. The first thing was to bring the matter before the legislature and get its approval. Michigan had just entered the great family of states. She was inexperienced in public work of all kinds. Governor Mason on the passing of the law establishing a geological department appointed Houghton as state geologist. From boyhood Houghton's passion had been the study of the natural sciences. He explored the woods and rocky gorges as a boy. He had made discoveries before he was ten years old. All through his life he looked on science as the great object of his devotion. It has been said that if any man ever lived who was not merely an indoor geologist that man was Dr. Houghton. His enthusiasm for his scientific and professional pursuits was great. It was like a steady fire strengthened and deepened by the fuel of new ideas constantly thrown on the flame. Houghton had no great gift of persuasion; he was no coiner of phrases. Often he would stumble to find the word he wanted, a habit that would make his conversation halting were it not for the fine vigor he displayed in expressing his thought. His social qualities were singularly happy. He could not drop into a store or office without being surrounded by a group of admiring friends. A young man himself he was always associated with the fresh leading spirits of the new state of Michigan. The young men about him were swayed by his ardent temperament and his genius. He was always a leader, and had he lived (he was only thirty-six at the time of his death) would undoubtedly have risen high in the councils of the nation. The following account from an eye witness is well worth repeating:

"Houghton—his diminutive stature, his keen blue eyes, his quick and nervous motions, the strong sense of energy of his words when dealing with matters of science, and his undaunted perseverance when carrying out his designs, made him a notable figure. He was no carpet knight of science and on his geological excursions never flinched from hard work and exposure. On these occasions he usually wore a suit of gray, the coat having large side pockets and hanging loosely upon his small figure. His hands and feet were very small but the latter were encased in boots that came almost to his thighs. His shockingly bad hat was broad brimmed and slouched and his whole appearance was that of a tattered weather-worn backwoodsman. I remember meeting him a few

years later when his scientific mind and energetic body had unraveled the mysteries of the mineral region of Lake Superior and when the great fame of that region had called hosts of scientists to those yet wild shores. He had just landed at Eagle river, fresh from one of his rough expeditions, and was at once hailed and surrounded by men known over the whole world for their scientific learning, to whose figures and bearing his own presented a most striking contrast. Yet these men bowed to his superior knowledge—sagacity I might term it—and one of them frankly said in my hearing that the rough-looking doctor carried more true knowledge in his cranium than all the big heads put together."

It was on the night of Oct. 13, 1845 that Dr. Houghton lost his life on Lake Superior. In an open Mackinac sailboat he was making his way to Eagle river over the rough waters of that lake. They were not far from land. A snowstorm prevailed and the wind was blowing a gale. Houghton was anxious to get round a point of rock, a low broken promontory that shelved to a considerable distance seaward. He encouraged his men to brave the storm. The wind was increasing in fury and his companions proposed that they should go ashore but Houghton, who had great confidence in his own skill, urged them to proceed. Amid the increasing violence of the gale the boat was capsized. They all went under for a moment. Houghton was raised from the water by his trusty companion and friend, Peter, a half-breed who had been with him for several years, and was advised by him to cling to the keel, then uppermost.

"Never mind me," cried Houghton, "Go ashore if you can. Be sure that I will get ashore well enough."

The boat was soon righted and all were at their oars again, but the interval was of brief duration. A moment later a wave struck them with such violence that the boat, receiving the blow at the stern, was dashed over endwise and all were thrown again into the water. Two of the men were thrown on the beach in a helpless condition, but Houghton was drowned and his body was not found until the following spring.

PART TWO OF THE PROLOGUE.

THE COMMERCIAL DISCOVERY OF COPPER.

THE fact that Dr. Houghton made no mention of iron in his report is significant in that it shows conclusively that the Indians could have had no traditions concerning it. This is important because it brings the discovery of iron within the memory of men now living and relieves it of conjecture and surmise. Of copper it is impossible to determine who first discovered it. There was a people who antedate the present race of Indians that knew of its existence and had uses for it. These people lived and died long before Columbus discovered America, and while the Indians have neither legend nor tradition concerning them the fact that they lived is proved in the mute testimony of nature. Lying about some of the copper mines were stone hammers; underpinning masses of native copper were wooden props in such a state of decay that centuries must have been required in the process; but, above all, out of the thrown-up earth of these early mines, trees had grown, had fallen and decayed and had grown again, marking the centuries with the rings upon them. Of this crude but industrious race the Indians had no knowledge.

This book is a book on iron; but in investigating the data on which to found it much interesting information concerning the early discoveries of copper in the Lake Superior country was literally dug up at first hand and it was therefore thought best to briefly mention it for the sake of history.

Among those who were attracted by Houghton's reports of the presence of copper in the Lake Superior country was John Hays, of Cleveland, at that time a resident of Pittsburg. It is to John Hays that the credit belongs of making the first discovery of copper in the Lake Superior country in a commercial sense. He had been engaged in the drug business for a number of years at Pittsburg and he determined to visit the Lake Superior region, primarily to regain his health and incidentally to inquire into the mineral deposits. Before leaving he explained his purpose to Dr. C. G. Hussey of Pittsburg, and made known to him his plans.



JOHN HAYS.

Hussey became much interested in the trip and agreed to pay half of Hays' expenses and to furnish half of the funds required to take up leases of mineral lands. Hays accepted the proposition and left Pittsburg on the 17th of August, 1843, for Cleveland, where he engaged passage on the steamer Chesapeake, commanded by Captain Howe, for Mackinac. The journey from Mackinac to Sault Ste. Marie was made in a canoe. At the Sault he secured passage on the schooner Algonquin, commanded by Captain John McKay, and reached Copper Harbor in good season. At that point he made the acquaintance of Mr. Raymond, a speculator from Boston, and also the government mineral agent, General Cunningham. Raymond had made or entered three leases, one at Copper Harbor, one at Eagle river and the third at Portage Lake. He was anxious to dispose of them, and Hays, being convinced upon examination that they were valuable, made an offer of one thousand dollars for a one-sixth interest in the three leases on condition that his partner, Dr. Hussey, would ratify the proposition. This Raymond agreed to. Hays then returned to Pittsburg and reported the affair to Hussey, who was pleased with it and the bargain with Raymond was closed. They concluded, however, that it would be well to control a larger interest in the leases, and Hays accordingly called upon Dr. Charles Avery, Thomas M. Howe and Dr. Wm. Pettit, all of them men of means. Hays explained the venture to them and they decided at once to join and to purchase an additional three-sixths interest in the Raymond leases. Hays and his associates then owned two-thirds of the Raymond leases. He was authorized by his partners to explore the lands and develop the property. In the spring of 1844 he left Pittsburg for Lake Superior with nine men, all laborers, except Alfred Rudolph, a geologist. At Cleveland he chartered the schooner Swan, Captain Dunbar, to carry his supplies to Sault Ste. Marie. At the Sault he chartered the schooner Algonquin to take his party to Copper Harbor. After making an examination at Copper Harbor he decided to put down a shaft near Lake Fanny Hoe, uncovering a vein which proved to be the celebrated black oxide, yielding 86 per cent of pure copper. Hays built two houses, one for storage purposes and the other for the men to live in, and mined altogether some twenty-six tons of the black oxide during the season. Dr. Hussey and other members of the company from Pittsburg visited the mine and Hays gave Hussey a memorandum of supplies that were needed to carry them through the winter, which Hussey was to purchase and ship before the close of navigation. Unfortunately, they were not purchased in time to be shipped that fall and Hays was compelled to rely on the kindness of



THE CLIFF MINE IN THE SPRING OF 1845, FROM AN OLD ENGRAVING.

Captain Clary, commandant of a fort which the government had constructed at Copper Harbor in 1844 to protect the settlers from the Indians. Clary furnished the supplies required and they were returned by Hays in the spring. Hays always maintained that had it not been for this succor the company would have been compelled to abandon the enterprise.

In the forepart of September, 1844, the brig John Jacob Astor, commanded by Capt. Ben. Stanard, received at the Sault a cargo of supplies for the United States government, part to be unloaded at Copper Harbor for Captain Clary and the balance at La Pointe. She arrived at Copper Harbor on the night of Sept. 18, 1844, and came to anchor. During the night a violent storm sprang up and it was impossible for the crew to raise anchor to seek shelter under the lee of the islands, as the brig would have drifted on the rocks before they could have got her under sufficient headway for her to obey the helm, and they were therefore compelled to weather it out. The storm increased in severity and on the night of Sept. 19 the large anchor gave out and the Astor drifted on the rocks. Providence was in their favor to some extent, as they were able to save the cargo and their lives, but the brig was totally destroyed by the pounding which she received. The loss of the Astor left the inhabitants at the Sault and all the prospectors on Lake Superior dependent upon the little schooner Algonquin.

About the middle of November Hays started for Eagle river in a small Mackinac boat with George Bailey and a German miner. The distance was about thirty miles. They were out but a short time when one of those sudden wind squalls struck them, which made it almost impossible to effect a landing, but they were finally enabled to reach Cat Harbor, six miles from Eagle river. The country was a wilderness with no inhabitants except a remnant of the Chippewa tribe of Indians scattered throughout the country and subsisting on game and fish. From Cat Harbor Hays went to Eagle river on foot, and on Nov. 18, 1844, discovered the Cliff mine, famous for being the first mine ever developed in the Lake Superior country and the first that yielded pure or native copper in the United States if not in the world. This was considered a great discovery throughout the whole metallurgical world. In England the discovery could not be credited, because the British Museum contained no specimens of metallic copper, and it was not known to exist. Not being prepared to do any mining at that time Hays returned to Copper Harbor. It was the middle of winter now, but Hays felt that his partners should be informed of his wonderful discovery. It was important also that the vein should be worked extensively and at once. He endeavored to hire two men to carry a message

to Pittsburg over land, as there was no other way to reach that point, but it was impossible to get anyone to undertake the trip. It was a great distance through an unknown wilderness and no white person had ever undertaken the trip on foot. Hays finally decided to go himself and succeeded in hiring two Chippewa Indians to accompany him as guides and to carry his provisions and camp utensils. The story of this trip, the first ever made by a white man, is probably best told in Hays' own words as related shortly before his death,* as follows:

"I obtained these Indian guides through the influence of Rev. John Pitzel, a missionary located at L'Anse Bay. I borrowed of Charles Brush, a sutler at Fort Wilkins, one hundred dollars to enable me to pay the Indians and other expenses of the trip. On the 18th of December, 1844, we left the mission at L'Anse Bay and began our journey. Before we started I purchased snow shoes, blankets, flour, pork, tea and sugar, cooking utensils, two axes, also a gun and a dog, which comprised our outfit. After we got fairly started, we made, some days, very good time; then again it would become very fatiguing on account of having to cut our way through the underbrush. At night we would clear away the snow for our camp, and then erect a wigwam, as the Indians call it, to shelter us for the night. This was made with pine boughs, evergreen and bark. Thus, with our blankets and a large camp fire made of birch bark and logs, we managed to obtain a good night's rest. We could bake sufficient bread at night to last us through the day. This, with our tea and pork and occasionally a rabbit or partridge, which we shot, enabled us to perform our day's journey. In ten days we reached Kitsen's station on the Menominee river, in Wisconsin, fifty miles from its mouth. The distance traveled was about two hundred miles. On account of the hard country we had to go through, the underbrush and heavy snow—often on our hands and knees—and cumbersome snow shoes, made it impossible for us to make more than twenty miles in a day. In crossing the Menominee river we unfortunately lost our dog. The ice at one place in the river had given away, and he jumped to swim across. The current proved too strong and it carried him under and we never saw him again. Before reaching Kitsen's we were in close quarters for provisions, and the Indians would undoubtedly have killed the dog and eaten him if he had not been drowned. As I was very much

* John Hays was born at Zelinople, Butler County, Pa., on Oct. 9, 1804, and died in Cleveland in April, 1902, at the age of ninety-seven years and seven months. Through the strange irony of fate Hays did not profit in the riches which he unearthed. He added millions to the wealth of the world but none of it clung to his own fingers.

attached to him it was just as well, perhaps, that he was drowned, as it would have made us all feel bad to kill him.

"Late in the evening of that day we struck an Indian trail, and in a short time we heard a dog bark, and we knew that there was an Indian camp close by, which we soon reached at the Great Falls on the Menominee. The Indians at the camp had obtained some liquor and they were all intoxicated, and my Indians were somewhat timid in approaching the strangers, for they were certainly a hard looking lot of red men. But we were too hungry to be detained through fear, and we finally approached them and explained to them our condition, and they invited us to partake of some supper with them, which we did without much ceremony. The meal consisted of boiled fish (sturgeon) and flour mixed with it, making it into a kind of soup or paste. Although not very palatable, we were in prime condition to do it justice. I purchased of them some flour, venison and fish, and left them next morning at daybreak, all sound asleep from their night's debauch. Near Kitsen's we found a family from the state of Maine. They were engaged in hauling saw logs for a saw mill they were building. They insisted upon us taking dinner with them and we accepted the invitation. It was appreciated, for it was the first good meal we had partaken of since we left L'Anse Bay. The Indians had a large quantity of fish (sturgeon) piled up like cord wood and frozen hard. This they had to depend on for their living during the winter.

"After arriving at Kitsen's Station, which is an agency or station of the American Fur Co. (Kitsen was a Canadian and was married to an Indian woman; he acted as agent for the fur company, bought furs and did some farming) I settled with my two Indian guides and paid them, according to agreement, one dollar per day from the time they started until they returned to their homes at L'Anse. I also made a contract with them to meet me on my return trip in March, 1845, at Kitsen's. I hired Mr. Kitsen to carry me in his sleigh to Dr. Hall's saw mill, at the mouth of the Menominee river, on Green Bay. Dr. Hall was a native of New York state. He owned a large saw mill at this point, the first one built on the river. He also practiced medicine and had a fine family. I here met the mail carrier, Mr. Johnson, and he accompanied me as far as the town of Navarino, on the Fox river, at the head of Green Bay. I intended to make our next stopping place at Mr. Powell's at the mouth of the Pashetico river; but night overtook us and we were looking for a place to camp when we heard a dog bark, and after tracing it up we came to an Indian wigwam and found it occupied by an Indian and his family. We

remained with them over night and left them early in the morning and arrived at Powell's about 9 o'clock a. m. Powell was a trader and farmed some. We remained with him that day and I hired him to carry me to Navarino in his sleigh, a distance of twenty-five miles, for which I paid him five dollars. Powell's horse had been used for racing in his younger days and now in his old age he was stiff from the hard usage, and we had to assist him to get up, but after he warmed up he showed his mettle. After we arrived at Navarino I secured the services of a Frenchman to carry me to Fond du Lac, Wis., in his sleigh, for which he charged me four dollars. This town at that time was small and consisted of the following trades or business: One country store, keeping a little of everything; one hotel, one livery stable, a blacksmith shop and a doctor. From here to Milwaukee I was compelled to foot it; from there to Chicago by stage; then to Marshall, Mich., also by stage; from this town to Detroit by the Marshall & Detroit railroad, a temporary affair, made of strap rail.

"At Detroit I met Dr. Houghton, the state geologist. He examined some specimens I had brought with me and was astonished as well as interested in the discoveries made. I took a stage for Pittsburg by way of Cleveland, and reached the former place about the 10th of January, 1845. I immediately reported to my associates, Hussey, Howe, Avery and the others, and they were surprised and much elated with the enterprises. We then settled the business up to date, the whole expenditure amounting to \$1,854. Our investment was considered a very valuable one, and we could have sold it for \$250,000. We determined to push the development of the property as far as possible. I remained in Pittsburg about six weeks, looking up supplies and other matters, and then I returned to Lake Superior by the same route, the Indians meeting me as agreed upon at Kitsen's, near the mouth of the Menominee. We reached Copper Harbor on the 21st of March."

During Hays' absence the miners at Copper Harbor had taken out and had ready for shipment the twenty-six tons of black oxide of copper, which was sent to Roxbury Chemical Works, Boston, Mass. It yielded eighty-five per cent of pure copper. During the summer of 1845 Hays explored the district at Eagle river and found a large mass of copper weighing 3,100 pounds at the base of the cliff. Later a mass of native copper weighing eighty-one tons was unearthed. As he was not well he had the company relieve him and Dr. Pettit of Pittsburg, took charge of the property. Hays returned to Pittsburg, and remained there until the spring of 1846, the Cliff mine meanwhile undergoing development. He returned

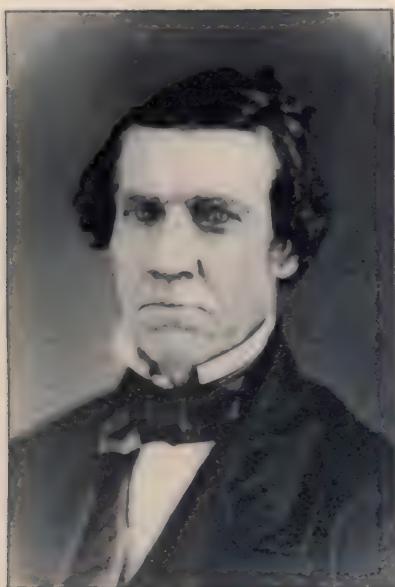
to Eagle river in 1846 and remained there until the spring of 1847. Through his advice Dr. Edward Jennings was employed to superintend the mining operations, as he was an expert in mining copper, having had large experience in England. As the Cliff mine was running a large amount of copper in masses from one ton up to eighty-one tons, it became necessary to erect smelting works, so as to put it in marketable condition, that is to cast it into ingots weighing ten pounds, more or less. For this purpose Hays went to England to examine English furnaces, carrying with him samples of copper, one piece weighing 3,852 pounds, and others from one up to ten pounds. The large piece was sold to King's College on the Strand and the smaller specimens were given to the British Museum. There were no furnaces in England, however, for smelting mass copper. The English obtained their copper from ore combined with sulphur known as sulphate of copper, which had to be crushed and then washed, yielding but five per cent of copper. The specimens that Hays left in England created great excitement among scientific men, especially geologists, and did much to enlist the interest of capitalists in the wonderful mineral region.

Hays returned to the United States determined to construct a furnace on a plan of his own, provided that his associates were satisfied with it. The company at once decided to construct the furnace and it was completed at Pittsburg during the year 1848. The top was removed by a crane and masses of copper hoisted in by the same means. It proved to be a great success. Hays superintended the work for the first eighteen months. The first batch of ingots was sold to Robert Fulton of Pittsburg. The first sheet copper that was rolled west of the Alleghanies was rolled from one of Hays' ingots at Shoenberger's mill and by Mr. Lutton and his son, Wm. H. Lutton.

The Cliff mine proved a profitable investment, earning for its owners, the Pittsburg & Boston Mining Co., in a period of ten years, from 1846 to 1856, \$3,858,000 upon an original assessment of \$108,000.

PART THREE OF THE PROLOGUE.

THE DISCOVERY OF IRON ORE.



WILLIAM A. BURT.

THE original discoverer of copper in the Lake Superior country was some member of a prehistoric race. But with iron the story is different. It is only a little while ago. Iron was first discovered by William A. Burt, United States deputy surveyor, and party who were engaged in surveying the upper peninsula. In the party were William Ives, compassman; Jacob Houghton, barometerman; H. Mellen, R. S. Mellen, James King and two Indians named John Taylor and Michael Doner. While running the east line of township 47 north, range 27 west, they observed on Sept. 19, 1844, by means of the solar compass the most remarkable variations in the direction of the needle. These fluctuations greatly excited Mr. Burt, who was the inventor of the solar compass.

and when the compass indicated a variation of 87 degrees he could contain himself no longer.

"Boys," said he, "look around and see what you can find."

Each member of the party began an independent search and found outcroppings of iron ore in great abundance. In fact they could not fail to find it, for a mere rip of the sod revealed the ore. Mr. Burt was well advanced in life and was much more interested in the performance of his compass than he was in the deposits of ore themselves.*

* Wm. A. Burt was born in Worcester county, Massachusetts, June 13, 1792. In 1792 he removed with his parents, Alvin and Wealthy Austin Burt, to Montgomery county, New York. He had no advantage of public schools, but at 14 years of age had mastered surveying as then

"How could they survey this country without my compass," he exclaimed, and after the manner of an old man, he repeated the remark a score of times.

It is worthy of note that no member of this party of surveyors made any effort to profit by the discovery. It does not seem to have occurred to any of them to preëempt one of the locations. They noted in their report and on their maps that iron existed—and that was all. The cause of this indifference doubtless lay in the knowledge of the almost insuperable obstacles which would have to be overcome before the iron could reach known, and had gained much knowledge of astronomy. He worked on the farm during the day, and, like the proverbial pioneer, studied at night by the aid of a pipe knot. At 17 years of age he removed with his father's family to Erie county, New York, which was then in the far west. He saw service in the war of 1812, and in 1813 he married Phoebe Cole. In 1817 he made a journey as far west as St. Louis, doing odd jobs of surveying along the route. In 1822 he removed to Michigan and first built a saw mill at Auburn, Oakland county. He endeavored to get employment as a government surveyor, but failing in this, bought a tract in Washington, Macomb county, in 1824.

From 1824 to 1832 he was engaged in mill building and local surveying. In 1826 and 1827 he was a member of the Michigan Territorial Council and did much towards inaugurating that great improvement, the St. Mary's rails Ship Canal. From 1831 to 1834 he was county surveyor of Macomb county.

In 1833 the United States surveyor general appointed him United States deputy surveyor for the district northwest of the Ohio. He at once went into his field northward of Ft. Gratiot, on the borders of Lake Huron.

Mr. Burt found, what all surveyors had previously discovered, that the variations of the magnetic needle led to inaccuracy in surveys. Mr. Burt did what other surveyors had not done—discovered a remedy for the variations of the needle. He thought that if the local disturbances which led to these variations could be overcome, surveyors might be much more accurate than they had been, and this led, at length to the invention of the solar compass by which the courses and distances are controlled by influences far beyond the reach of terrestrial disturbances.

In 1835 he exhibited a model of the compass to a committee of the Franklin Institute, at Philadelphia, the first scientific body of this country, and was granted a Scott's legacy medal. On Dec. 14, 1840, he exhibited to the same institute a perfect solar compass, for which he received the highest commendation. In 1847 he wrote a manual for the use of the solar compass. In 1851 he visited the World's Fair in London and received a prize medal for his solar compass from Prince Albert, president of the Royal Commission.

The solar compass is an astronomical instrument. The sun is utilized in working with it, although surveyors well versed in astronomical science sometimes use other planets. In the use of the common surveyor's compass the only means available to determine the azimuth, or the true meridian, is an observation of the transit, or the elongation of the pole star at night, which can be done only on a clear night. Surveyors often, to secure good work, were compelled to cut down trees and erect stakes, which was very laborious and expensive.

Various causes led to the deflection of the magnetic needle. Among them are local causes, hid in the earth's crust, heat and cold, thunderstorms and the heat or magnetism of the body of the operator. Often the pivot on which the needle swings would become blunt and the needle not traverse twice alike. The solar compass is independent of the needle although it is constructed with one and its use is invaluable in magnetic forces and in recording the variations from the true meridian. It was said of Burt's compass that it seized a sunbeam as it fell and compelled it to point out the magnetism and poles of the earth, and thus determine the latitude, true meridian, azimuth, variation of the magnetic needle and local time, a mode of surveying independent of the magnetic needle.

Mr. Burt possessed inventive faculties of the highest order. His last invention was the Equatorial Sextant, though he did not live to perfect this instrument. He also invented the first typewriter. He died at his home in Detroit, August 18, 1858.

its market. However it is strange that none of them recognized the fact that time was the only asset required to make them wealthy.

The work which William Ives did upon this survey was unusually faithful and historically important. He performed it with the utmost care and diligence, and indeed overcame many physical obstacles which would have daunted a less courageous spirit. At one time, being wounded badly in one foot, the party had to leave him at the mouth of the Carp river. The next day Ives appeared among them at what is now Negaunee, having traveled the entire distance upon a pair of improvised crutches. Any



THE SITE OF THE OLD JACKSON FORGE ON THE CARP RIVER, NEAR NEGAUNEE, SHOWING REMAINS OF OLD DAM FORGE, BUILT IN 1847-48.

one who has traveled over the face of this rugged country will appreciate the heroism of this performance.

It is a singular circumstance that the knowledge of the discovery, made by the surveyors, while duly recorded in their reports, seems not to have been known by any one who could profit by the information. They related the discovery to the Indians whom they met, but it seems not to have reached the ears of any white man. Among those to whom they made mention of the existence of iron was Louis Nolan, a half-breed, living at Sault

Ste. Marie, and an old Indian chief named Madjigijig, whose wigwam was at the mouth of the Carp river.

In the spring of 1845 P. M. Everett, of Jackson, Mich., excited by the reports of the existence of copper and silver in the Lake Superior region, made a journey into that country accompanied by four men. When he reached Sault Ste. Marie he met Louis Nolan, who related to him the discovery of the iron deposits by the surveyors and volunteered to show him the way. Everett had not heard of iron, but accepted the offer of Nolan and employed him as a guide. Nolan was a physical giant, as hard as a rock, and proved an invaluable servant. He escorted the party as far as



ORIGINAL JACKSON MINE SHOWING STUMP UNDER WHICH IRON ORE WAS FIRST
DISCOVERED IN LEFT FOREGROUND.

Teal Lake but was unable to locate the iron deposits. Everett then started for Copper Harbor, but on the journey thither fortunately fell in with Madjigijig, the old Indian chief, to whom they related their fruitless search. He at once undertook to show them the deposits and piloted them directly to the Jackson Mountain and then to the Cleveland Mountain. These terms, Jackson and Cleveland, are used because it was by these names that the deposits were later known. Madjigijig's superstition regarding the deposits was such that he would not approach them directly, so that the actual discovery of the Jackson deposit was made by two members of Mr. Everett's party—S. T. Carr and E. S. Rockwell. In reward for the services of the Indian on this occasion the officers of the Jackson

company subsequently gave him a written stipulation, of which the following is a copy:

RIVER DU MORT, May 30, 1846.

This may certify that in consideration of the services rendered by Madjigijig, a Chippeway Indian, in hunting ores of location No. 593 of the Jackson Mining Co., that he is entitled to twelve undivided one-hundredths part of the interest of said mining company in said location No.

A. V. BERRY, Superintendent,

F. W. KIRTLAND, Secretary.

The agreement on the part of the company was never fulfilled and Madjigijig finally died in poverty. However, it is true that none of the original members of the Jackson Mining Co. got anything out of their holdings, and Madjigijig therefore fared upon an equal basis with them. But this is overstepping the development of the story.



JACKSON STUMP. DETAIL OF PRECEDING PICTURE.

with 300 pounds of ore upon their backs. Some of the party remained behind to keep possession of the location, but Berry journeyed on to the Sault

* Mr. Everett in a letter to Capt. G. D. Johnson, dated Jackson, Mich., Nov. 10, 1845, says:

"I left here on July 23 last and was gone until October 24. I had considerable difficulty in getting anyone to join me in the enterprise but I at last succeeded in forming a company of thirteen. I was appointed treasurer and agent to explore and make locations, for which last purpose we had secured seven permits from the secretary of war. I took four men with me from Jackson and hired a guide at the Sault, where I bought a boat and coasted up the lake to Copper Harbor, which is over 300 miles from Sault Ste. Marie. There are no white men on Lake Superior except those who go there for mining purposes. We incurred many dangers and hardships. We made several locations, one of which we called Iron at the time. It is a mountain of solid iron ore, 150 feet high. The ore looks as bright as a bar of iron just broken. Since coming home we have had some of it smelted and find it produced iron and something resembling gold—some say it is gold and copper. Our location is one mile square and we shall send a company of men up in the spring to begin operations. Our company is called the Jackson Mining Co."

with the ore. At the Sault he met J. Lang Cassels of Cleveland, a noted mineralogist, who had been sent into the peninsula by a number of Cleveland gentlemen to report upon its mineral resources. These gentlemen were anxious to develop the mines, should any of promise be found. Berry, learning that the men whom Cassels represented were of the highest integrity, made known the Cleveland location to him, on condition that the expenses of keeping possession and making roads should be borne jointly. Dr. Cassels took Berry's canoe, visited the location and secured it by a permit. Berry proceeded to Jackson, Mich., with his ore, where he made two attempts to smelt it in a cupola furnace and failed. Some of the ore was then taken to Mr. Olds of Cucush Prairie, who succeeded in making a fine bar of iron from it in a blacksmith's fire, the first iron ever made from Lake Superior ore.



ARIEL N. BARNEY

In the summer of 1847 the Jackson company constructed a forge on Carp river, about three miles from the mine, and on Feb. 10, 1848, the first iron ever made in the Lake Superior region was made in this forge by Ariel N. Barney. A month later the forge went out of commission, being carried away by a freshet. Mr. Everett returned in the summer of 1848, repaired the dam and resumed the manufacture of blooms. The first iron made was sold to E. B. Ward, who used it in the walking beam of the steamer Ocean. The forge had four fires, from each of which a lump was taken every six hours, which was placed under the hammer and forged into blooms four inches square and two feet in length. The daily product

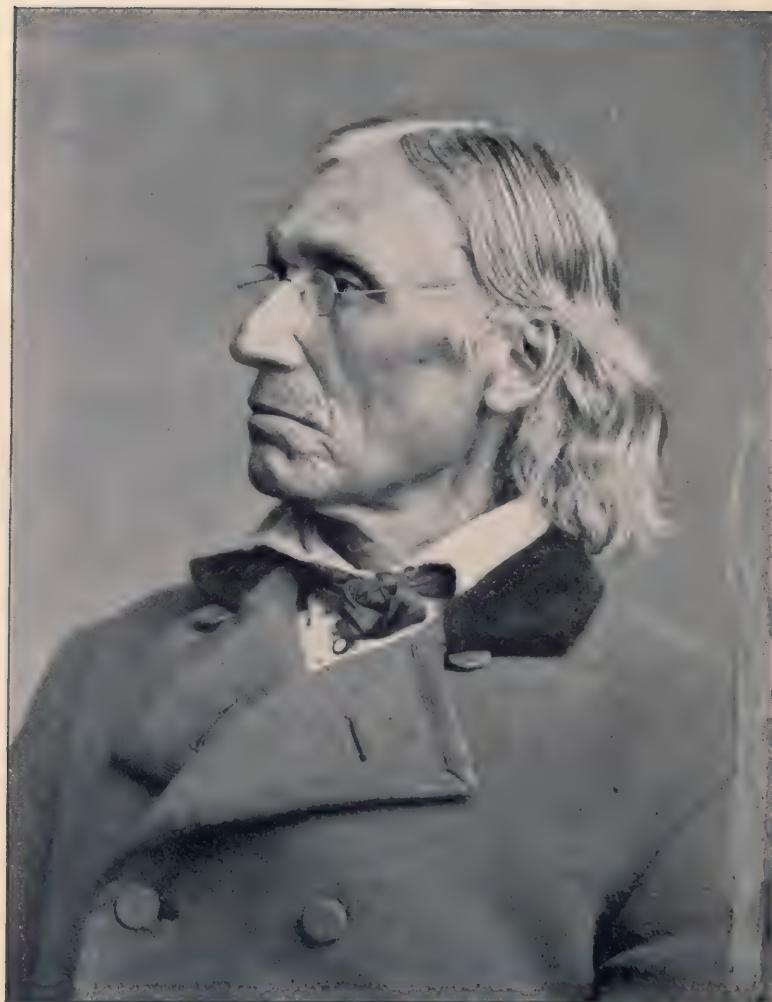
was about six tons, requiring two teams of six horses each to convey the blooms to Marquette, which lay ten miles away. The roads were of unvarying horror and breakdowns were frequent. The same difficulty which attended the getting of the blooms to port attended the getting of supplies to the forge—the ore and charcoal. After struggling with insufficient power, for some time the Carp river ran pretty low, with the frightful grades and the unspeakably bad roads the forge met the death to which it was born.

Meanwhile there lived at Mackinaw a man of extraordinary qualities, who was destined to give the central figure of this story a prodigious start in life. His name was Robert J. Graveraet. Of him it might be said as Hamlet said of his father:

The front of Jove himself—
An eye like Mars, to threaten and command,
A station like the herald Mercury,
New lighted on a heaven kissing hill,
A combination and a form indeed
Whereon each good did seem to set his seal
To give the world assurance of a man.

Graveraet was not an ordinary man. He would be singled out as a natural leader among thousands. He was ambitious; he had a will of iron; he had the faculty of winning men; he was generous, gentle, but firm; he had great intelligence and energy; and his mother had given him a constitution that did not know the meaning of fatigue. For grace of bearing and beauty of proportion Graveraet challenged instant admiration; and moreover his muscles were of steel. This man recognized more quickly than any of his associates the immeasurable value of the iron deposits. He believed that he had a claim upon two of the most valuable of them—the Cleveland and the Lake Superior. The Lake Superior was a third outcropping lying not far from the Cleveland mine and is called in this story Lake Superior because it was by that name it subsequently became known. Graveraet induced John H. Mann and Samuel Moody to undertake their preëmption. A little later Dr. Edmund C. Rogers went upon the Lake Superior location to assist in obtaining preëmption rights. How sadly Graveraet was mistaken regarding his priority of right will later be revealed.

In the summer of 1848 Graveraet met at Mackinaw Dr. Edward Clark of Worcester, Mass., a representative of Mr. Waterman A. Fisher of Worcester, who had become interested in the accounts of the mineral wealth of the region and who had sent Clark to investigate. Fisher was the proprietor of a cotton factory and was reputed to be a wealthy man, as wealth was accounted in those days. Clark, like all the rest, was on the copper scent until he fell in with Graveraet. Graveraet induced him to stop at Carp river to inspect the iron mines. He took him to the Cleveland and Lake Superior locations, where Moody, Mann and Rogers were holding possession and showed him the apparently inexhaustible deposits. He also



CHARLES BAWGAM, THE CHIPPEWA CHIEF.

took him to the Jackson forge and gave him a bloom of iron and some ore. Clark returned to Worcester where the iron was drawn into wire at a factory and proved most excellent. He had no trouble in enlisting Fisher's aid in developing the iron mines. Graveraet, too, appeared at Worcester in the early winter, having made the journey from Marquette to Saginaw on snow shoes. Graveraet had perfect mastery over his physical resources and a journey of this character was as nothing to him. Fisher was charmed with the man. He readily assented to advance the necessary capital, Graveraet offering as security leases from Moody and Mann upon the Cleveland location and from Rogers upon the Lake Superior location. A. R. Harlow of Worcester, a practical mechanic, was also induced to join forces, and he accordingly constructed the necessary machinery for a forge.

In March, 1849, the Marquette Iron Co. was organized, consisting of W. A. Fisher, A. R. Harlow, E. B. Clark and R. J. Graveraet. It was decided to ship the machinery to Marquette as soon as it should be finished, and Harlow was to follow immediately thereafter. Graveraet returned at once to Mackinac Island to engage a number of workmen for the mines, because beyond the preëmptors and a few copper miners there were no white men whatever in the Lake Superior region. He had no difficulty in enlisting the aid of nine men and a boy, though to all accounts the region to which he invited them was as bleak and barren as the proverbial wilderness. It is with the boy that this narrative is principally concerned.

In April, 1849, Graveraet and his party set forth for the promised land in the little steamer Tecumseh. At the Sault they transferred their few belongings to a Mackinaw barge, and after eight days of rowing, towing, poling and sailing reached Carp river and anchored at Indian Town, now known as Marquette. The first person to greet the little party was Charley Bawgam,* a full blooded Chippewa Indian, lithe as a sapling and in the

* Bawgam died in January, 1903, having reached the age of nearly 100 years. He had been for fifty years one of the characters of the upper peninsula, a splendid specimen of a dying race. It was said of him that if he had had the advantages of education he would have rivaled Daniel Webster in eloquence. His face while essentially Indian was nevertheless intellectual in cast. Bawgam was certainly a link with the past. One little story will suffice to illustrate what the life of the Chippewas was before the white man came to inhabit the peninsula. A colony of the Chippewas lived on Presque Isle in peace; but because many of them had never drawn bow or wielded the tomahawk in combat they were called squaws and were sorely taunted by a tribe of warlike Indians who lived a considerable distance in the peninsula. Their insults finally became so insufferable that a band of the Presque Isle Chippewas was organized to give them battle. Before they set out one of their number was appointed as a runner whose duty it was, when they approached the enemy, to station himself in some secluded spot where he might watch the outcome of the combat unobserved. They stole upon their enemy silently and began the fight with such suddenness and swiftness that, though they were outnumbered four times over, they slew half their foes and put the other half to flight. The retreating enemy, however, overcome with chagrin at being vanquished by so slight a number and by a colony which they had hitherto held in contempt,

prime of life. He was the son of Shauwano of Sault Ste. Marie, the last of the tribal chiefs to make his headquarters at the rapids. Bawgam's sister, Lisette, had married at Sault Ste. Marie, John Logan Chipman, son of a learned judge of the Supreme Court of Michigan and himself elected many times judge of the Superior Court of Detroit, and later a member of Congress. Bawgam invited the party into his cedar wigwam and his wife Charlotte, who was the daughter of the Chippewa Chief, Madjigijig, cooked a fine supper of fresh venison, wild duck, geese, fresh white fish, potatoes, bread and coffee. The place at which the little party landed, the most interesting member of which was the hero of the present tale, was known as Jackson's landing, a name which would indicate, of course, that they were not the first white persons that had landed there. In fact there were two small log houses at the point and five or six birch bark wigwams, the whole inhabited by Indians. Beyond this small clearing was the forest and thicket.

The next morning Graveraet gave each member a pack strap and blanket and directed him to use his own discretion into putting into the pack what he thought he could carry a distance of twelve miles up hill. Graveraet put into his own pack more than twice the quantity that any other member of the party could carry, and thus equipped the caravan started for the much-discussed iron hills. When they had journeyed about two miles Graveraet observed that one member of the party, a well-formed though slender lad, was staggering under his load, and as he passed him whisked it from off his shoulders and threw it upon his own much heavier pack as though it had been a feather. Even then the lad had difficulty in keeping up with Graveraet's giant strides.

"Jump on my shoulders, Peter," invited the leader.

There was no doubt of Graveraet's ability to carry Peter, pack and all,

rallied when their conquerors supposed them to be in full retreat, and returned to the attack with great fury. They slew all, except the runner, who witnessed with dismay the annihilation of his comrades and who later returned to tell the story which established forever the courage of the Presque Isle Chippewas among the tribes of the north. The runner was seen by Gov. Cass soon after his return and the governor listened with much interest to the story of the adventure.

The writer saw Bawgam in the spring of 1902. He was living with his wife Charlotte in a little cabin on Presque Isle which had been built for him by Peter White. The framework of his great figure was erect, gaunt and giant-like and indicates clearly what a powerful man he must have been. He spoke of the blindness which had come upon him in 1899 with touching simplicity. His large grief was not that he could not read or view the myriad delights of nature, but that his remaining solace had been taken from him. "I can no longer fish," said he; and there was a world of meaning and of sorrow in the words. For it bespoke the great love of outdoor life and the Indian's inherent right to wrest his living from nature. In the 93rd year of his age a miserable game warden put the old man in durance for setting a sucker net in a stream. Justice Creary, however, before whom the old Indian was taken, had a strong enough sense of the fitness of things to peremptorily order his release.

but the boy's pride was a bit wounded. When the party halted at a little brook for lunch, Graveraet again reached for the stripling's pack after lunch was oyer.

"I will carry my own pack, sir," said Peter.

He has been carrying it ever since and several others along with it. And thus we meet our hero—Peter White of Marquette—who, man and boy, has had the most fascinating career of anyone who has ever been identified with the history of the region of the great father of lakes. The theme is fruitful.

CHAPTER I.

THE JOURNEY TO THE IRON MINES.

PETER WHITE was born at Rome, Oneida county, New York, on October 31, 1830. The Whites had lived at Rome for a great many years and Peter is bound to that town today by ties of great affection. A scene was enacted there that is worthy of a place in the annals of American history for it was out of his grandmother's petticoat that the first flag of the United States was made. The first recorded legislative action by the American congress in session at Philadelphia for the adoption of the stars and stripes was in a resolution offered Saturday, June 14, 1777 as follows:

"Resolved that the flag of the thirteen United States be thirteen stripes, alternate red and white; that the union be thirteen stars, woven in a blue field representing a new constellation."

Although this resolution was not officially promulgated by the secretary of congress until Sept. 3, 1777 it seems to be well authenticated that the first flag hoisted as the stars and stripes was unfurled by Capt. Stephen White on Friday, Aug. 6, 1777 over Fort Stanwix, commonly known as Fort Schuyler, then a military post on the present site of the city of Rome, Oneida county, New York. This flag was hastily constructed from a soldier's white shirt, an officer's blue overcoat and a woman's red petticoat. Captain Stephen White was Peter White's grandfather and in his zeal to make an emblem for the new republic he employed one of his wife's petticoats.

Peter White's first trip into the world was made at the age of three years when he began an independent exploration of the fastnesses of the city of Rome, thus giving an early evidence of that intrepid nature which has made his life so notable. There is lingering in his mind now only vague memories of his first incursion into the world which consisted largely of amazing high buildings, devious and bewildering alleyways, vast stretches of unknown woodland and an endless procession of people, strange and mysterious who were scurrying busily in all directions without

paying special heed to the lone adventurer. Meanwhile two persons with whom he had hitherto made his abode, namely his father and mother, were in hot but fearful pursuit which lasted until the hardy young explorer was found domiciled in a great castle, ten blocks from home, which had capitulated upon his repeated attacks and where he was enjoying the fruits of his conquest in the form of a piece of cake. The young soldier of fortune was hustled off home, given a bath and put to bed. He seems now to have lain dormant for five years waiting for other worlds to conquer. At any rate nothing more is recorded of him until he reached the age of nine years when his parents removed to Green Bay, Wis., and planted our young hero at the base of that country which was to become singularly his own. The little lad that was trotting along the wagon road to Green Bay, knocking off the tops of the tall grasses with a switch, was eventually to give the country his name. The upper peninsula of Michigan is frequently called "Peter White's country."

During Peter White's stay at Green Bay, Louis Phillippe visited the place as the guest of Eleaser Williams, a half-breed of great character and force. Peter rode with Louis Phillippe to Eleaser Williams' home on the banks of the Menominee river but it must be confessed that he rode with the driver. He remembers the heir to the throne of France as a man of distinguished bearing and gracious manners. Meanwhile Peter was just an ordinary boy going to school and soaking into his system such knowledge as a boy could get. He was an earnest, eager student but the piping schoolboy times were not to his liking and he longed to make his own way in the world. At the age of fifteen he left home. He might, indeed, be called a fifteen year old runaway for he left home without the consent of his parents and while he corresponded with them faithfully he did not see them again for ten years. The world's base to him at that time was Mackinac Island, whither he went. It was just when the copper excitement was at its height and the imagination of Peter was greatly inflamed by it. In a little while he left for the Sault in the hope of reaching the promised land. In this venture he was unsuccessful and returned to Mackinac Island. It is interesting to note that he arrived at the Sault on the very day that James Schoolcraft was murdered and found the little settlement in a perfect turmoil of excitement over the crime. One of Peter's most vivid recollections is that of bending over the body of the murdered man who was lying in the grass face downward with a bullet through his heart.

On June 10, 1847 preparations were being made at Sault Ste. Marie

to haul the schooner Uncle Tom over the rapids. Preparatory to doing so Capt. Brown of the schooner Swallow, John G. Parker, Capt. John Stanard, Mr. Seymour, Tom Ritchie, William Flynn and Dr. Prouty got into a yawl to go over the rapids to sound a channel for the schooner. Capt. Brown was steering the boat, Capt. Stanard was forward piloting her down and Parker was pulling the stroke oar. When the yawl came to the first fall she took in some water and Parker took the precaution to pull off his boots. When the yawl got to the big fall she filled forward, veered badly in the eddy, then capsized and floated down the river bottom side up. When opposite McKnight's dock, Capt. Brown and Mr. Parker clung to her bottom and were taken off by Capt. Redmund Ryder. Shawano, the Indian chief, who was out fishing in his canoe saw Seymour go down. He paddled over to the spot and succeeded in pulling him up with his spear. All the rest were drowned. That very afternoon Capt. Moore of the schooner Merchant in going ashore at the Sault suffered a broken leg by the oar striking the dock and as soon as Capt. Brown got into dry clothes he was asked to take the Merchant up to Portage Entry. Just as she was about to sail an active lad, who was extremely desirous of reaching the copper country, asked for the privilege of working his passage on her. He was refused because the boat had a full crew and a heavy passenger list. It was fortunate for him and for this tale that this was so, for the boy was Peter White. The Merchant never reached Portage Entry. She sank near Grand Island with all on board.

Among the vessels lying at the dock at Sault Ste. Marie was the schooner Bela Hubbard, then plying regularly between Detroit and the Sault. Upon this vessel Peter White managed to secure an humble position. This constitutes now an interesting period of his life because it embraces all that is maritime in it. He sailed before the mast, as the novelists say, on the schooner Bela Hubbard—and on the schooner Bela Hubbard only. After the vessel had made about half a dozen trips between Detroit and Sault Ste. Marie she capsized off Thunder Bay island. Fortunately no one was drowned. After considerable buffeting they managed to reach the island and were taken to Bay City by the propeller Chicago.* The crew volunteered to work their passage back to Detroit and were all engaged. Before shipping, however, they obeyed the natural instinct to see what manner of place Bay City might be and improved the few hours of daylight in that pursuit. In returning to the vessel after dark they had to crawl

* The Chicago, Vandalia and Oswego were the first screw boats to be built on the great lakes. They were all built at Oswego, the Vandalia being built in the winter of 1839-40, and the Chicago and Oswego in the winter of 1840-41. The Vandalia was 80 ft. keel, 19½ ft. beam and 10 ft. moulded depth. The Chicago and Oswego were 95 ft. over all, 19½ ft. beam and 10 ft. moulded depth.

over piles of lumber 20 feet high, which, with the natural altitude of the dock, made the deck of the Chicago below a somewhat indistinct mark to jump upon. However, they all made it well except Peter. He jumped into the fore hold and broke his left arm.



DR. ZINA PITCHER.

In all such primitive settlements there is always one person without special training who makes claim to medical knowledge and by common repute obtains an undeserved reputation for skill. In this particular case it was a woman who attended Peter with such success that by the time the boy reached Detroit the arm had swollen to three times its natural size and was giving him excruciating pain.

He was taken at once to the office of a physician, who after a cursory examination decided that the only thing to do was to amputate the arm. Doctors have an agreeable custom when proceeding upon a capital operation in emergencies of this character to invite a number of fellow surgeons to witness the operation. They too frequently gather merely as witnesses and do not exercise their perceptive faculties on the patient's behalf as much as they should. Upon this occa-

sion Peter was put into a reclining chair and securely strapped. Several doctors entered and exchanged greetings with the operating surgeon, but none of them paid any attention to Peter. They drew their chairs about and gathered around in a semi-circle and the operating surgeon proceeded to select his instruments. Peter was silent and pale as a ghost. Presently there entered the room a surgeon whose reputation, already wide, was soon to become national. His name was Zina Pitcher. He did not, as had those who preceded him, merely take a seat, but went immediately to the patient and examined the arm. It was frightfully swollen. He asked the operating surgeon if any steps had been taken to reduce the swelling, and the surgeon replied in the negative.

"We cannot tell anything about the condition of the arm until the swelling is reduced," said Dr. Pitcher. "I think it would be well to delay the operation for a couple of days."

He gave instructions that hot whisky and water, as hot as it could be borne, should be poured upon the arm at fifteen minutes intervals during the next twenty-four hours. The effect of this treatment was wonderful. When Dr. Pitcher called twenty-four hours later the swelling was greatly reduced. He ordered the treatment continued for twenty-four hours longer and the arm had by that time almost regained its normal size.

"My boy," said Dr. Pitcher, "I don't believe we'll amputate this arm at all."

He securely fastened Peter into a chair, and, working with the utmost rapidity, while the youngster screamed with pain, he pulled the bones into place and put the arm into splints. Peter carried his arm in splints for four months, but at the end of that time it was a good arm and is a good arm yet.

Some years later Dr. Zina Pitcher died and was borne to an unmarked grave. The Detroit papers, conscious of the man's greatness, suggested the advisability of a public subscription to erect a monument over his resting place. This petition fell under the eye of Peter White, who immediately subscribed to the fund. He never received acknowledgement of the receipt of his money. This, however, was not the fault of the paper. It was promptly acknowledged though the issue in which it was acknowledged did not reach him. But as a matter of fact Peter White's money did not go into the monument, but was devoted to a far more tender and beautiful purpose. His contribution from Marquette, owing to the uncertain mail service of those days, did not reach Detroit until the subscription account was closed. Indeed the entire amount was subscribed in a day. When Peter White's contribution arrived, a florist, noting the eloquence of the letter, offered to plant flowers each succeeding year upon the grave, and to this purpose the money was pledged. One of the most-prized treasures in Peter White's collection today is a photograph of this sturdy old physician.

When Peter's arm had sufficiently mended to permit him to work again he obtained employment as clerk in the store of Freeman & Bro., on Jefferson Avenue in Detroit and remained with the firm for nearly a year. He then shipped with a man who was going to keep the government lightship at Waugoshance reef in the Straits of Mackinac, but when he reached Mackinac Island he found that the place which he sought had been filled. He obtained employment in the summer time with Capt. Canfield of the light-

house service, who was building a crib at Waugoshance Reef, and in the winter-time he obtained a clerkship in the store of Edward Kanter with a much valued permission to go to school.

Projecting from one side of Canfield's tent Peter was accustomed to see one of his trunks having his name and address painted on the end, as is customary. It read, "Captain Augustus Canfield, Corps of Engineers, U. S. A., Detroit, Mich." The supplies and special articles for the work were usually addressed to "Captain Canfield, Topographical Engineers, Waugoshance Lighthouse, Straits of Mackinac, Michigan." Having no other copy, Peter used to imitate this writing and the lettering on the trunk, as a boy desirous of perfecting himself in penmanship naturally would. One day the corps ran short of stone and Captain Canfield ordered the boat's crew, and taking along provisions for a trip of several days, pulled across the straits. Captain Canfield made an exploration of the shore to secure a place to open a quarry of stone. On such exploring tours the boat's crew had nothing to do but wait on the beach until the captain returned from his tramp in the hills. Peter took advantage of one of these halts to write on the sand in letters six inches high, "Captain Augustus Canfield, U. S. Topographical Engineers, Waugoshance Lighthouse, Straits of Mackinac, Michigan," until he had practically filled the beach with the lettering. Canfield had a sharp, incisive way of speaking, and when he returned he abruptly asked,

"Who did that?"

Captain Masse, the coxswain of the boat, pointed to Peter and said: "That little cuss." Canfield then went about on other business, and Masse, who it appears could not read, gathered that the scribbling was derogatory to Canfield. He rather frightened the boy with his forebodings of punishment and Peter was by no means reassured when Canfield sent for him the next morning. Canfield had nothing more in mind however than to promote him to the position of time-keeper at a fair advance in wages. The clerk, it appears, was overburdened with work and Canfield was glad to discover that there was some one among his crew who could relieve him.

Mackinac Island is small, charming and highly romantic. It is one of the most beautiful spots in the world. It rises abruptly out of the emerald water. It has a superb pebble beach, guarded by overhanging cliffs of craggy rocks, trimmed with exquisite evergreens, but its great attraction lies in its intense humanity, for its government has been Indian, French, British and American in succession. Peter White spent two years upon this island, and now, as the president of the Mackinac Island state park commission, can look back with pleasure upon those years.

Samuel K. Haring was the collector of customs of Mackinac Island. In such a small community, where population is only a household, there is much interchange of thought and confidence. Haring took an interest in Peter, his hopes and his ambitions, and when Robert J. Graveraet appeared upon the island in 1849 in search of men to develop the iron mines of Lake Superior, Haring urged the boy to join the expedition. Graveraet was offering \$12 a month and board, Peter was making \$35 a month and board, but Haring, who was a man of remarkable foresight and who clearly saw the advantages such a youth would have in a country capable of untold development, urged him to go. So Peter, eighteen years old, offered his services to Graveraet and started out upon his life's work. There followed the tempestuous voyage in the worthless little side-wheeler Tecumseh. The party had gone but a few miles from Mackinac when a huge wave took off the yawl boat, swept the decks clear of freight and sent Capt. Pratt scurrying back into harbor again. The next day the boat started out again with more passengers than it could either sleep or feed, for it was not intended that the vessel should take over twelve hours in making the trip to Sault Ste. Marie. After an heroic struggle the boat finally got inside of the Detour and there met with such solid ice that she had to back out again. It took the boat ten days to literally hammer her way to the Sault. Meanwhile the supply of food had become exhausted and an incipient bread riot occurred. This was quelled, however, by the boat actually sinking to her deck, furnishing an excitement that temporarily banished hunger. There was on board an old man, nicknamed Old Saleratus, who was the butt of every gibe and jest, but he proved the ship's salvation, for his trade was that of ship carpenter. He found the leak and stopped it.

Then followed the trip in the Mackinaw barge to Indian Town, which has previously been noted, and the march to the iron hills where Peter at the little brook resolutely picked up his own pack and carried it the rest of the way. He dropped it at the Cleveland mine, which was then known to the little party only as Moody's location. The tramp had been a long and weary one. The country was jagged, broken and mountainous, densely wooded and thick with underbrush, with only a tree blazed here and there by the Indians to guide the way. There is not in the Lake Superior region the even sweep of range and canyon, as in the far west, which frequently offers level stretches for the traveler. It is a constraint grade which wearies the lungs as much as it does the legs. Peter was tired when he dropped his pack.

CHAPTER II.

THE FOUNDING OF MARQUETTE.

SAMUEL MOODY and John H. Mann, who had spent the previous winter and summer at the location, came out of a little log shanty to welcome Graveraet. They were keeping possession for this indomitable soul. The party was exhausted and lost no time in getting to bed, but Peter was up betimes in the morning. He found Capt. Moody already stirring.

"Come and help me dig some potatoes, boy," said he.

"What?" exclaimed Peter, who with the snow scarcely off the ground, knew that it was not the time to plant potatoes, much less dig them.

"Come and help me dig potatoes," repeated Moody, and seizing a hoe and an old tin pail he led the way to the top of the iron mountain adjoining. About half an acre upon its pinnacle had been partially cleared and planted to potatoes. The astonished Peter saw him open one or two hills and fill his pail with large and splendid potatoes.

"I may as well get some parsnips and carrots for dinner while I'm about it," said Moody, and suiting the action to the word, he began to pull them up in great abundance before the eyes of the speechless Peter.

This was the ordinary method adopted by the preëmptors to keep their vegetables sound and sweet over winter and not, as Peter thought for the nonce, the extraordinary perversity of nature.

Graveraet set Peter to work clearing brush and kept him at it for a month. Thus he denuded the ore of its covering and prepared the way for those immense shipments which have since swung the pendulum of the world's manufacture of iron and steel west of the Alleghenies. It is needless to say that Peter could not see the result of his handiwork. He did not know that he was making history. He cleared brush energetically, and incidentally fought black flies by day and mosquitos by night. The activity of these pests was so incessant that the surveyors in the Lake Superior region were forced to wear buckskin masks over their faces while running the lines. As the masks speedily became grimy with dirt the sight of the sur-

veyors to the uninitiated was formidable and terrifying. On June 10, 1849, the work of clearing the brush was temporarily suspended and Graveraet and his party went down to the shore of the lake to welcome Harlow and his party from Worcester, whom he calculated would arrive about this time with the machinery for the forge. They found that Mr. Harlow had arrived with quite a number of mechanics, and what was most interesting of all, a few of the gentler sex. They had reached Marquette the day before on the schooner Algonquin from the Sault. When the vessel had passed Laughing Whitefish point an east wind was blowing and Capt. John McKay had previously decided that Iron Bay, now Marquette, was no place for a schooner to be during an east wind. The prevailing opinion of navigators was that Iron Bay was full of sunken rocks. He accordingly landed his passengers on the beach just above little Presque Isle. They were about thirty-five in number and had a large amount of baggage, including trunks, and tool chests which was all dumped about the beach. They were compelled to stay there over night without bedding and were a sadly bedraggled and uncomfortable lot when they reached Marquette the following afternoon. Every one was enthusiastic, however, and the impulse to give reign to the imagination was irresistible. All were seized by the same thought—the founding of a great city.

"Let me fell the first tree," cried Peter, giving voice to the common thought.

He cut a tree at the point of rock on what is now Lake street at such an angle that it fell over the bank onto the lake shore. It was a young tree that Peter selected, but it was the first. Instantly all grasped axes and attacked the virgin forest. They decided to call the future city Worcester, in honor of Mr. Harlow's native home. With the trees that were felled they began the construction of a dock that very afternoon, because they expected the arrival of another vessel with more machinery in a few days. The trees were carried into the water whole and piled lengthwise and cross-wise until the structure, thus created, was even with the surface of the water. Then they wheeled sand and gravel upon it and by the end of the second week the dock seemed both spacious and substantial. Its outer front was made of solid rock. The surface was corduroyed on the third week and it was then ready for the reception of freight.

One morning of the fourth week, Peter White, who was always the first out of bed, was surprised to find that the dock had entirely disappeared. Not a trace of it remained. The sand of the beach was as clean, smooth and packed as it had been for centuries before. Peter could scarcely credit

his senses, but in a moment the humor of the thing caught him and he merrily traced upon the sand:

"This is the spot where Capt. Moody built his dock."

Moody was wroth when he saw the havoc which the sea had made, and more wroth yet when he saw what Peter White had written. He obliterated the record and threatened to discharge the boy at the end of the month; but, as in the manner of impetuous and violent-tempered men, straightway forgot about it. It was a long time before anyone had the hardihood to attempt the building of a dock again.

Methods were primitive indeed. Boilers were plugged and thrown overboard and other machinery was landed by the Mackinaw barge. Cattle and horses were invariably pitched overboard to swim ashore. Passengers and perishable freight were landed with small boats. Under the leadership of James Kelly, the head carpenter, who was from Boston, Peter assisted in building a log house for his particular party, and when it was finished it was called Revere house after the most fashionable hotel in Boston. This building stood and retained its name as late as 1860.

During the first week or so all labor was strictly manual. There was no horse to be had. No matter how heavy a log might be the men pulled and hauled it about as best they could. By some means, however, a horse that belonged to Silas Smith came into possession of the party and Peter was selected to drive him. The boy was immensely pleased with this task. The horse was a useful animal and catholic in its appetite. It would eat anything. Smith even warranted him to thrive on sawdust, provided it was from hardwood. A week or so later an old man named Ganson wandered into the camp with a team of oxen, a cow and a calf which he sold to Graveraet's party.

"Peter, can you drive oxen?" sang out Graveraet.

"I can," answered Peter gravely, but with some hesitation.

Peter did not know whether he could drive oxen or not. He knew that "Haw" meant for the oxen to go one way and "Gee" the other, but he did not know which was which. He reasoned, however, that if he did not know the oxen did, and taking the gad he drove them straight ahead until well out of sight of the camp, when he yelled "Whoa!" The oxen stopped.

"Haw!" cried Peter.

The oxen turned to the left. Then Peter knew that "Gee" meant to the right. When he returned to the camp and nonchalantly yelled "Haw" everyone concluded that Peter had been driving oxen all his life.

"Can you milk?" asked Mrs. Wheelock, the boarding-house keeper.

"Yes," answered Peter unhesitatingly, for this he knew he could do. And so he was let into the graces of a very good and kind woman who volunteered to do his washing and mending and who invited him to eat at the second table, for all of which he was truly grateful.

Peter was proudly driving his oxen a week later when a stranger overtook him and demanded the cattle, claiming that they belonged to the Jackson Iron Co. Peter declined to surrender them and drove them back into camp. That night the cow and calf were stolen and it was reported on reliable authority that the directors and president of the Jackson Mining Co., who had just arrived at their mine, had had veal for dinner. More in sorrow than in anger the Jackson company rebuked old Ganson for having sold the animals while he was in debt to the company for the freight on them up. The old man's heroic reply was that the Jackson company owed everybody, but that he chose to reverse the order of things and owe the Jackson company. In that event, he said, there was a possibility that the debt might some day be paid.

About this time Jim Presque Isle, whose real name was James Hilliard, informed Capt. Moody that there was a large meadow a short distance from Presque Isle covered with superb grass. The only trouble with it was that the water on it was too deep to admit of mowing it. In a few hours, however, he thought a drain could be cut out into the lake that would draw the meadow dry. Moody collected his men, and, armed with shovels, axes, scythes, rakes and pitchforks, they rowed to the meadow. Capt. Moody was palpably nervous. He had never attempted to drain a field before, but he deliberately staked out the proper place for the canal and ordered the workmen to proceed. They dug each way from the center for four or five hours, and then opened both ends simultaneously, when to the great astonishment of the workmen and the no less great chagrin of Moody, the waters of Lake Superior rushed in and submerged the meadow. The field of scientific engineering was permanently abandoned by Moody and he directed his workmen to resume the clearing of the land at Worcester for the erection of the forge, the machine shop, the saw mill and the coal house, which were to be, in his judgment and that of the entire party, the forerunner of a great industrial city. It should be noted that the name of Worcester did not long continue. It was changed to that of the most illustrious of the Jesuit missionaries, Pere Marquette, who now sleeps peacefully at St. Ignace.

Meanwhile the restless Graveraet had gone to Milwaukee and returned

in August on the little schooner Fur Trader, with a large number of Germans, some Irish and a few French, to develop the iron mines. It was the great cholera year and various parts of the country were affected with the dread pestilence. The little schooner had a frightful voyage. Ship fever broke out and was mistaken for cholera. Several died on the voyage and many were landed very sick. No sooner did the report get abroad that the ship was stricken with the cholera than every Indian departed. Within sixty minutes the last canoe was out of sight, for the cholera to them was more fearful than even the small-pox. Dr. Rogers was called upon to lay aside the axe and resume the calling which, at a later date, he practiced with such distinction at Chicago. He quickly saw that the men were not suffering with cholera at all, but with ship and typhoid fever. A rude building was constructed and used as a hospital. In a few days Dr. Rogers himself was stricken with the disease, as, indeed, were a dozen other powerful men, and the condition of all of them was desperate.

"Peter," said Graveraet quietly, "you will have to take your turn in the hospital."

"Very well, sir," said Peter as quietly.

Mrs. Wheelock advised Peter to bathe the patients constantly. Whether it was from knowledge or intuition or what not she directed him to do that which the highest medical skill at a later day pronounced the best treatment for those suffering with typhoid. Peter bathed them in cold water incessantly. Dr. Rogers, who was the weakest and worst of all, endeavored from time to time to gather his scattered faculties and direct the treatment of himself and others. He mumbled medical terms which Peter could not understand, so he went on heroically plunging them into cold water. Things looked hopeless for two weeks; the men were seized with the haunting deliriums which accompany this terrible fever; they shrieked for food and medicine; but for answer the boy gave them a cold bath. At the end of the second week Dr. Rogers looked at him calmly and lucidly. The fever had fled and the light of reason was in his eye.

"Peter," said he, "you have saved us all, but if you could have understood me you would probably have killed us all."

It was a happy crowd when the fever was banished and the Indians cautiously put the noses of their canoes against the beach in Iron Bay again.

Peter's next job was filling the first steam boiler ever set up in the peninsula. It was likewise his first contract, and as is customary in such cases, he bid too low. Peter's bid was \$1.50 and as the work had to be done by hand, it took him three days and two nights to do it. When it was

finished he surveyed it with sadness but with wisdom. As part compensation, however, he was installed as fireman and engineer, and only left this place to enter the machine shop to become a mechanic.

The number of vessels on Lake Superior in those days was limited, scarcely more than half a dozen, and they were frequently out of repair. The Fur Trader was the only one which endeavored to make regular trips to Marquette, but even these were three or four weeks apart. Towards the end of October she had not put in an appearance for over ten weeks.

One of the hardships of existence in the peninsula was the inability to replenish the stock of provisions regularly owing to the infrequency of communication. The stock of provisions ran quite low. Butter and other luxuries entirely disappeared. Only a few barrels of pork and flour remained and a short-ration order had to be issued. One of the men pretended to discover a conspiracy among the Germans to seize the warehouse and he volunteered to organize a guard to protect it. The prospect of a long winter on a few mouthfuls of food per day did not appeal to the Germans whom Graveraet had brought from Milwaukee, and one bleak morning in November they started out of the country by way of Grand Island and Munising. But few of the party, however, ever reached Grand Island. It was a trackless wilderness and many of them stumbled by the way. They probably would have perished there but their hardier brothers returning from Grand Island, where they had learned that a propeller loaded with provisions had departed for Marquette revived their spirits and all came back to Marquette.

Graveraet, who had disappeared again—this time to Chicago—came overland from Escanaba with a troop of horses. The horses were needed for the purpose of drawing the iron ore from the mines to Marquette, where it was hoped that the forge under construction would shortly be in operation. His purpose was to make Marquette a great iron and steel manufacturing center. His dream was to make the peninsula an industrial empire. The only thing which he possessed was resistless energy. Never at any time in his life did he have the means to finance his projects. If he had he doubtless would have stamped his individuality more powerfully upon the peninsula. Graveraet is but a memory now; but while he lived he was a force. He had practically no money to offer those who associated themselves with him. When one realizes his limitations, the spectacle of the man penetrating the wilderness with men, horses and equipment becomes magnificent. It speaks volumes for an imperious will and fascinating personality.

This extraordinary man was attracted to Peter White for they had a common facility of language. Graveraet spoke English, French, German and several Indian dialects. He was highly educated. Peter White spoke several languages also, a gift wholly native, for his mind was practically undisciplined. He seemed to have the faculty of absorbing language by association. Throw him in contact with an Indian and Peter White would acquire his tongue within a month. Graveraet was therefore attracted to a boy whom the Chippewas followed after as though they were his personal retinue. The Chippewas liked Peter because he could tell them stories in their own language. It was even said that he had a greater hold upon the Indians than Graveraet, who had lived among them for years. There fore when Graveraet wanted anything done he summoned Peter. One day he sent him upon a mission of some delicacy to Escanaba. This meant a trip overland across the peninsula—a mere nothing nowadays, but a considerable undertaking through a continuous forest for a boy of eighteen. Two Chippewas, Mongoose and Jimmeca, volunteered to accompany Peter. This is one of the chief recollections of the man's life, which is not surprising since it was the first trip he ever undertook through the wilderness on foot. They carried their provisions on their backs. The Indians were of incalculable aid to Peter in following the trail. When one tree is blazed the Indian seems to know by instinct where to look for the next blaze and so the trail was followed with reasonable accuracy. There is nothing more monotonous, however, than following a trail, either on horseback or on foot. On the fourth day Peter began to despair. The woods seemed endless. He thought of the children of Israel in the wilderness. They were in it for forty years; Peter was in it for four days. Poor children of Israel, thought Peter. On the seventh day he came to Escanaba, then known as Flat Rock, having scrambled through thickets and floundered through swamps. He returned in five days and made a mighty resolve never to go into the woods again. It will be shown, however, how quickly this resolution was broken.

CHAPTER III.

THE OVERLAND JOURNEY TO ESCANABA.

THE business of pioneering is tragic. There may be plenty of comedy here and there, a deft touch of humor that puts a high light occasionally into the day's work, but the background is always somber. It is a tragedy pure and simple. The initial year in the new country was not without its sorrow. A. R. Harlow was the practical man in the settlement. He had heard in some way of a new deposit of iron near the mouth of the Carp river and resolved to secure it. It was necessary to make a journey to the land office at Sault Ste. Marie to obtain the necessary papers. John H. Mann, who with Moody was guarding the mines for Graveraet, undertook to make the journey in a small boat. Accompanying him were Jim Presque Isle, Henry Emmons and a boy named Kellogg. Emmons was the monied man of the party and carried the gold, amounting to a thousand dollars or more in his belt. He had joined the Marquette Iron Co. when it was organized at Worcester. They left Marquette on Nov. 27th. This is well into the treacherous season and is an undertaking which no one, familiar with the moods of Lake Superior, would attempt. Their boat was little more than a row boat. The party never reached Sault Ste. Marie and never returned to Marquette. Two of them were found weeks later dead and frozen stiff in the boat. Mann was one of the two held in a pitiless ice clutch against the ribs of the boat. The body of Emmons was found the next spring on the beach with the gold still undisturbed in his belt. The fact that there was no iron near the mouth of the Carp river makes the tale more pitiful and more tragic.

It was a wonder, too, that Moody did not meet the fate of Mann. His life was preserved for the civil war to put a quietus upon it but he gave the peninsula plenty of chances to take it. Graveraet, as related, had brought a number of horses from Chicago, depending upon the vessels to bring the hay and grain for the long winter's feed later. The schooners Swallow and Siscowit, with their cargoes of grain, were unable to make Marquette, owing to a storm, and ran to L'Anse, where they laid up for the winter. It

was absolutely necessary to get this grain to keep the horses from starving, and Capt. Moody, who had a heart of oak, started after it. He went upon snow shoes to L'Anse, accompanied by James Broadbent, an old salt-water sailor. Upon their arrival there they found the vessels stripped, and what was worse, frozen in the ice. It was a disheartening task but Moody was equal to it. He and Broadbent began to refit the Siscowit. Her captain, old Jim Bendry of L'Anse, later of Baraga, finding that he could not physically prevent them from doing so, contented himself by firing upon them as picturesque a stream of profanity as ever emanated from human lips. Moody said later that he had a heap of respect for Bendry's command of language. They filled the Siscowit with corn and oats from the Swallow and employed a large number of Indians to cut a passage between two and three miles long through the ice, so as to float her out into the open water. They got her out on Christmas eve and arrived at Marquette on Christmas day, the sails frozen stiff and immovable and the ice a foot deep upon her deck. They had not seen land from the time they left L'Anse until they got into Iron Bay, having all the time a heavy northwest gale and snow storm. There was much rejoicing when the schooner entered the bay. She was successfully unloaded, but in endeavoring to get her into Chocolay harbor she missed the channel and went ashore in the breakers, where she pounded to pieces.

During the winter the little colony at Marquette had only three or four mails. Mr. Harlow, the deputy postmaster, employed the Indian Jimmeeca to go to L'Anse after the mail at the cost of \$10 a trip. The manner in which Mr. Harlow came to be deputy postmaster was thus: There had been neither postmaster nor postoffice at Marquette the preceding summer. All mail intended for the little colony on the shore of the lake, after being landed from the vessel, would be taken to the Jackson forge, and the mail bag there opened by the postmaster, P. M. Everett. The mail intended for Marquette, would then be returned to the carrier. A settlement had grown up about the Jackson forge and was called Carp river, because it was at the point of the settlement that the river was crossed. The postoffice, therefore, was known as Carp River. After a mail had arrived by vessel it was particularly irksome to the little colony at Marquette to wait for it to be taken to Carp River, nine miles away, to be opened and then returned. Letters were infrequent in those days and eagerly devoured. Newspapers were also eagerly sought and a single newspaper would be read by the entire population. It was carefully wrapped in cloth as it passed from hand to hand to preserve it and its age was a matter of

indifference to the reader. Just before the close of navigation, P. M. Everett brought down all the paraphernalia of his office to Marquette, which consisted of merely a few books and mail boxes and appointed Mr. Harlow as the deputy postmaster. Everett and nearly everyone at the Jackson forge then left the country for the winter. Indeed not a vestige now remains of this settlement at Carp river. The bridge is down, the forge is gone, the houses have vanished and the forest has grown over the place as though the hand of man had never disturbed it.

In the spring of 1850 the old Jackson Co. was about ready to suspend. It had undertaken the herculean task of making iron a thousand miles away from the market. It owed even to its own workmen. Mutterings were heard among the men and the rumor became pretty well defined that they intended to hang the president of the company, Mr. Czar Jones. At any rate Jones did not like the looks of things and sought out Peter White. He told Peter that he had pressing business down below. "Down below" was the usual way of designating one's home. He asked Peter to guide him to Escanaba. Hard knocks had begun to put an edge on Peter. He was growing to be a sharp hand at a bargain. Moreover, since the calf incident he had a poor opinion of Jones. He declined to go. Jones raised his bid from \$1 per day to \$3 a day and promised to pay him for sixteen days, the time that Peter estimated it would take to go and come.

"If you will get Mr. Harlow as security I will go with you," said Peter finally.

Peter drew up a formal contract, but while Jones eagerly signed it Harlow was most reluctant to attach his signature. Noting this reluctance, Jones agreed to leave the money with Mr. Harlow to be paid to Peter upon his return.

"You will take along a man to carry the provisions?" asked Peter.

"Yes," answered Jones.

Peter used up full seven days in reaching Escanaba. Never since has anyone attempted such a tortuous route across the peninsula. If there was a jungle or a swamp Peter plunged through it with Jones a close second. Peter was thinking of that stolen calf.

"Haven't you lost the way?" wailed Jones a dozen times a day.

On the fourth day Peter paused and wiped his brow. He gazed about him with much perplexity of expression.

"Great heavens," said he, "I am lost."

Jones fell upon his knees. Despair was written upon his face.

"To pretend to be a guide," he said, "and not to know the way."

The truth of the matter was that Peter had been looking for the Escanaba river for a full day and had failed to find it. A little later, however, he came upon it, but Jones' nerves had been so wrought upon that he no longer trusted his guide. He started up stream upon his own hook.

"Come back," roared Peter, "you're going the wrong way."

The old man stubbornly continued up stream until Peter running after him broke the ice and showed him which way the current flowed. On the seventh day they reached Escanaba. Peter returned to Marquette in three days.

The forge of the Marquette Iron Co. went into commission in the spring and in the following July Mr. W. A. Fisher and Mr. Long of the company visited Marquette. One day Peter was not a little surprised to have Mr. Long send for him.

"We want you to have charge of the company's store, Peter," said Mr. Long; "what wages will you expect?"

Peter had got out of the habit of expecting much from iron companies. Graveraet had offered him \$12, and sometimes he was getting it and sometimes he was not.

"I would expect \$24 a month," he said faintly without much hope of getting it.

"Indeed," replied Mr. Long with some surprise. "Very well. We were expecting to pay you \$45, but are glad to get you for \$24."

Peter took the position but went out with a very sober face. He had learned that it does not pay to have one's aim too low.

CHAPTER IV.

PROVING THE CLAIMS TO THE IRON DEPOSITS.

IN the fall of 1850 the preëmptors gathered at Sault Ste. Marie, where the land office was established, to prove their claim to the iron deposits. Samuel Moody and Dr. Rogers had left Marquette in a small boat for the Sault, the former to claim the Cleveland deposit and the latter to claim the Lake Superior location. They were becalmed and did not reach the Sault on the appointed day. The Cleveland company, however, had not permitted its claim to lapse for an instant since Dr. Cassel's visit in 1846. It had its representative present. They defended the claim of the original preëmptor and conclusively proved that possession had been undertaken long before either Moody or Mann appeared. Papers were issued in the name of the Cleveland company and the contention of this company was later substantiated at Washington. Graveraet seemed to have viewed this with complacency, but was furious at the non-arrival of Rogers, who was to have secured the Lake Superior location in his behalf. He was white with rage when Isaiah Briggs stepped up and secured it on behalf of John Burt. Briggs was a packer of provisions for the surveying parties and had built a little shanty for himself and his pony on the Lake Superior location, which he also used as a base of supplies. On the strength of this residence he secured the claim for Burt. Graveraet threatened to contest the claim unless Burt gave him a half interest in it at once, and Burt actually did give to Graveraet an undivided one-half interest in this enormous deposit. It has previously been shown that he had assigned a lease of this deposit from Rogers to the Marquette Iron Co. He now assigned this undivided one-half interest from Burt to the Marquette Iron Co.

The fame of Lake Superior iron was beginning to spread and was attracting practical ironmakers from Pennsylvania and Ohio. In the fall of 1850 B. F. Eaton and his brother, Watt Eaton, arrived from Columbus, O., to show the uncouth denizens of the peninsula how pig iron was made. They came with men and horses and supplies and a great flourish of trumpets and leased the Jackson forge. They swelled the natural population

of Marquette to a considerable extent, and, indeed, it had been much augmented with other arrivals. The winter closed in without any provision for the delivery of the mail on the part of the government. During these latter days with mail service every hour or so this privation cannot be appreciated. It is one of the things which one has to experience to comprehend its annoyance. Every man at Marquette had either a mother or wife and children behind. To see the winter inexorably close in and to know that one may not hear from them again until spring is a condition which a man who loves his family cannot endure. The thought is ever present that something has happened of which he is not cognizant. An imaginary evil is always greater than a real one. After a month or more had gone by without a mail the population became restless. A council was called in the Marquette Iron Co.'s store to consider the mail question. Everyone was present. The Eatons offered to give \$500 to establish a mail service during the winter and others swelled the total to \$1,200. The meeting disbanded after having instructed Mr. Harlow, the postmaster, to get someone to go after the mail.

Peter White's eyes had been standing out like saucers at the mention of these enormous sums of money. When the last man had gone he turned to Harlow and volunteered to become the mail carrier. Harlow laughed at him.

"Pshaw," said he, "you're too young. Besides you're not strong enough."

White, a powerful, broad-shouldered man nowadays, was at that time a slender chap. He was full-bearded, however, and looked more than his age. His dress was picturesque. He wore a red flannel shirt over a hickory shirt, summer and winter, and in the winter time wore moccasins large enough to accommodate two or three pair of stockings. This was the usual garb of the pioneer.

"Will you hold my job for me?" asked Peter, who did not want to sacrifice his clerkship in the store.

"Certainly, I'll do that," replied Harlow.

"Then I'll start the day after tomorrow," announced Peter.

And start he did. He got two Indians to go with him. His influence with the Indians was great and they would have gone with him to the pole. Hundreds of letters were written by the men when they learned that Peter was going to carry the mail. The whole town saw him off. The mail was very heavy, and what with the provisions, which also had to be carried, made a staggering load for his back. The mail was taken to L'Anse where

other carriers were met. Peter established a station where he might meet the carriers in the woods. It was as primitive as it well could be, Peter hanging the mail bag to the limb of a tree where the relay might get it. On the second trip he secured a dog sled and a team of dogs to ease his burden. The sled was flat, like a toboggan and the dogs were mongrels, stout curs, capable of making between four and five miles an hour. They had to be fed at short intervals to keep their temper and spirits at normal pitch. They became wildly excited at the scent of wolves and were almost unmanageable on such occasions. The mail was securely strapped to the sled, Peter traveling alongside of it on snowshoes, controlling the leading dog by a string rein and using a staff to stop the sleigh by pushing it into the snow. He made nine of these trips during the winter and they furnish the base for many of the legends of the upper peninsula. The lore of the French Canadian, in particular, is full of stories of Peter and his Indians and his dog sleds.

For these nine trips Peter received the aggregate sum of three dollars. Eaton's \$500 and the other pledges, amounting to \$1,200 in all, never materialized. They never paid him a cent. Among those who attended the meeting was Silas C. Smith, who had pledged \$3. Meeting Peter on the street one day he gave him the money.

"What's this for?" asked Peter.

"Your mail service," replied Smith.

Peter, to Smith's astonishment, handed back the money without explanation.

"I'll tell you some day," said he.

A year later he told Smith that he didn't want him to stand the whole expense of the nine trips. Peter has never regretted this experience, however. It strengthened his muscles and his constitution, and gave to him that wonderful physical base which even today makes him one of the most active of men.

CHAPTER V.

FIRST ORE HAULED FROM CLEVELAND MINE.

IT was during the winter of 1850 that ore was first hauled from the Cleveland location, which was, as shown, claimed by the Marquette Iron Co. The ore had been mined during the previous summer and put into the stock pile to await the winter's haul. Owing to the abominable condition of the roads, and in some places to the absence of any roads whatever, it was impossible to haul ore to the lake during the summer. The Cleveland mine lay two miles beyond the Jackson mine and the distance was regarded as a considerable item. During the preceding winter of 1849 the snows had been so heavy that no attempt was made to haul ore from the Cleveland mine. The little quantity that was hauled from the Jackson mine during the winter of 1849 was speedily consumed, and the forge had to suspend operations during a part of the summer for want of ore. Another great difficulty was the impossibility of keeping a sufficient stock of charcoal on hand to keep the forge running. The charcoal in those days was all burned or charred in pits. Such a thing as a charcoal kiln of brick or stone was unknown. The deposits fortunately needed no appliances such as drills or powder to work them. If they had they probably would not have been worked as there was neither drills nor powder in the peninsula. Nature by frost or some other means had loosened up thousands upon thousands of tons of as pure ore as ever was mined, so that any common laborer had only to pick it up in his hands and carry it to the stock-pile. In some instances the pieces had to be sledged into smaller dimensions in order to be lifted into the sleigh. During the winter of 1850 about twenty-five double teams were employed in hauling the ore to the forge at the lake where it was crushed and then made into bloom iron, ready for shipment. This venture of making blooms was most disastrous. The cost of hauling the ore to the lake, the cost of the operation of the forge, the long carriage to the mills of Pennsylvania and Ohio made the cost of the blooms so excessive that it was impossible to recover. By the time the blooms were laid down in Pittsburg they had actually cost \$200 a ton and the market rate for iron

was then \$80 a ton. None of the ore itself was shipped below. This thought had not occurred to the pioneers. In the spring of 1851 Ben Eaton, who had come into the country so bravely the year before, fled. He went to the most remote corner of the globe that he could find—Australia—and so far as known never returned.

In the summer of 1851 Peter White went fishing. He might, indeed, have gone fishing all summer for all there was doing. It was a time of woeful stagnation. There was no money and little of anything else in the peninsula. When he returned from his fishing expedition he found that the county of Marquette had been organized and that he had been elected county clerk and register of deeds. Peter protested that he was not yet of age. He was promptly told to keep still about it, as it was necessary that the county clerk should be a person who could write and that he was one of the few who could. At that time Peter would readily have passed for a man thirty years of age. He wore a full black beard which gave him a mature look. The appointment of clerk carried with it membership in the school board and he was elected treasurer of that body, an office which he has held continuously since. In the selection of Peter White as county clerk there was probably an intention in the minds of the inhabitants of Marquette to compensate him for services rendered. He had really earned the office of county clerk. Marquette had previously been attached to Houghton county, the county seat of which was Eagle River. One of Peter's thrilling experiences had been a trip to Eagle River, on foot and alone, to get the county clerk's certificate to a lot of legal documents. This intrepid young man, who seems to have been born without fear, went first to L'Anse, then across the ice to Portage Entry, then up the river and over Portage lake and across the portage to Eagle River. His business despatched, Peter prepared for the home journey.

"When do you return?" asked Mr. Kelsey, the county clerk.

"Tomorrow," replied Peter.

"Oh, no," answered Kelsey, "we never allow a winter visitor to depart under two weeks. Moreover, you are the first man that ever came from Marquette up here by land, and we must give you a good time."

Peter was somewhat frightened by the prospect. He never had been a social lion and he didn't want to be one. He would much rather have been permitted to go home quietly, and he thought for a time of cutting and running. But they were all so very friendly and so courteous that his fears were dismissed. And, indeed, they very well might be. The very next evening they gave a big party in honor of Peter White and scheduled

an even more elaborate one for the following evening. Peter protested that his apparel was not suited for parties, and for reply they took him to the leading clothier and made him don the most elegant suit of clothing in his shop. This round of festivity continued for nine days. He will tell you candidly today that it has not been equaled in all his varied career since. When he came to leave he was offered all the silver specimens and agates that he could carry. But Peter had been attracted by the cuisine, and, moreover, his wants were very simple.

"Let me take two cans of those elegant cove oysters to my Carp River friends," said he, "and I will be delighted."

Peter worked his way back as far as Portage Entry and found the ice in L'Anse bay all broken up. At that time copper mining on Portage Lake had not been dreamed of. Upon his arrival at the Entry he was laid up for three days with "le mal de raquette" or snow-shoe sickness. As soon as he could travel he set out through the woods for the Catholic mission. He knew nothing of the route except to keep in sight of the bay, and this he soon found was impossible, owing to the impenetrable nature of the under-brush. So he struck back into the woods for better walking. The distance he had to go was seventeen miles and it seemed to him as though he had already traveled thirty. It was very cold, twenty degrees below zero, he had had no dinner and night was coming on. He crossed a little valley, and as he mounted a hill, looked back and caught the only glimpse of the sun he had had that day. He knew that in order to reach the head of L'Anse bay he ought to be going towards the setting sun instead of from it. He changed his course in that direction and presently came across a single snow-shoe track, and was pleased to think that he was getting where someone else had so recently been. In a little while he crossed other tracks, and shortly thereafter another, and it soon dawned upon him that they were all his own. He had been traveling for hours in a circle, only enlarging it a little each time. It was now growing dark rapidly, and Peter had to make preparations for spending the night with the wild beasts of the forest. He had no axe or provisions, except the two cans of cove oysters, but fortunately he had a few matches. He succeeded in starting a fire at the foot of a dead cedar that leaned over into the forks of a hemlock, and as fast as it would burn to a coal it would slide down a little and thus replenish itself. Peter was too much excited to be either tired or hungry that night. He slept a little in an upright or sitting posture before the fire. The snow was about five feet deep. He had shaped an indentation of his own figure like a chair into the snow and lined it with balsam sprigs, so that it was quite

comfortable. In the morning Peter broke every blade of his congress knife in trying to open the cans of oysters. Failing in the attempt, he boiled them in the can and endeavored to eat them. Endeavored is used advisedly. He did not eat them. They refused to be eaten. They would not stay upon his stomach.

Bishop Baraga had left the Entry after Peter, and therefore knew that he was either hurt or lost. He sent an Indian after him. The Indian found him about 3 o'clock and took him to the mission.

CHAPTER VI.

PETER WHITE BECOMES POSTMASTER.

W. H. BRUCE was the general mail contractor for the upper peninsula with headquarters at Green Bay, Wis. In widely-scattered and primitive settlements the government has a habit of letting the distribution of the mail by contract. It saves the bother of Washington forever seeking or finding a man for some place which is so small as not to be even definitely located upon the map. So W. H. Bruce of Green Bay, Wis., was in general charge of the mails for the upper peninsula. The forwarding of the mails in the winter time didn't worry Bruce much, for he realized the utter impossibility of reaching some of the more remote settlements through the great banks of soft and yielding snow. And so it happened that during certain seasons of the year Marquette and vicinity were shut out from the rest of the world. When Bruce examined his lists he came across P. M. Everett's letter resigning the postmastership of Carp River, which had been forwarded to him by the postoffice department.

"Carp River is vacant," said he to himself. Bruce knew or thought he knew that Carp River was quite an important settlement in the rising iron country. He had heard a great deal of it. He had not heard of the processes of decay which had already resulted in its virtual abandonment. Meanwhile Mr. Harlow had secured the definite appointment as postmaster of Marquette. Bruce accordingly cast about for a postmaster at Carp River. Peter White's father was managing Bruce's business at Green Bay, and it was very natural that he should think of Peter White. As a matter of fact, he couldn't think of anyone else, for Peter White was the only person he positively knew to exist in the peninsula. Accordingly he instructed the postoffice department to appoint Peter White postmaster at Carp River. It never occurred to him to say anything to Peter White about it. The entire population of Marquette was therefore considerably astonished when the first vessel to arrive in the spring of 1852 brought a formidable looking letter, thick and bulky, bearing the seal of the United States government, stamped free, and addressed in big handwriting to

Peter White. Peter was the most astonished of all. He did not suppose that anyone beyond his circumscribed little world had ever heard of him, and especially not so mysterious and mighty an institution as the United States government. It was the use of the franking privilege that bewildered him, for he was the first person to be ever so addressed in the peninsula. Peter flatly declined to open the letter. He was afraid of it. He said that he hadn't done anything against the government and he didn't want the government to do anything to him. Moreover he did not want to put himself in the position of being responsible to the government for any of his acts and he felt that he would be if he opened the letter. He declared that it was perfectly clear that the letter was not intended for him even if it bore his name. There had been some mistake to which he did not care to be a party.

Letters in those days of infrequent mails were common property, and a town meeting was held to discuss the purport of the prodigious document addressed to Peter White. The meeting was held in Peter's boarding house, and Mr. Jacobs, a somewhat forceful character, acted as chairman.

"I will open the letter," said Jacobs, "and take the consequence."

Jacobs opened the letter and read the blank application of Peter White for the postmastership of Carp River.

If Peter had been alarmed before he was greatly mystified now. He could not conceive how the government could have possibly become possessed of his name.

"Let's fill it up," said Jacobs.

"It isn't meant for me and I'll not accept the office," said Peter.

Jacobs without replying began to read aloud the provisions of the application. He came to the clause which provides that the applicant must receive the indorsement of the nearest postmaster. Jacobs knew that it would be useless to refer the application to Harlow for indorsement, because Harlow knew that there was no necessity for a postmaster at Carp River.

"The nearest postoffice," ruminated Jacobs, "means, of course, the nearest postoffice. They don't mean the nearest postoffice to Green Bay or Marquette, but the nearest postoffice between here and Washington. That's Sault Ste. Marie. We will send this application for indorsement to Mr. Ashmun, the postmaster at the Sault. And we'll all sign it."

Capt. Caldwell volunteered to take the application to the Sault. In the course of two or three weeks a mail bag with complete postal equipment came for Peter White, together with his appointment as postmaster at Carp

River. Peter viewed his new office with considerable fear. He was afraid that his employer, Mr. Harlow, postmaster of Marquette, would incontinently discharge his clerk, the postmaster of Carp River. But Harlow took no cognizance of his rival. All mail, of course, came to the village of Marquette. Gradually, it was noted, however that more mail was addressed to the postoffice at Carp River than was addressed to Marquette. A circumstance which aided this diversion of the mail was the fact that Harlow held the postoffice in his house. There was ever present, therefore, that delicacy which prevents a man from freely entering another one's home, even when public affairs call him there. Peter held his postoffice in the store, where everyone, of course, felt himself free. The residents of Marquette were putting the words "Carp River" on their letter heads while writing. The diversion of the mail eventually became so complete that Harlow was merely receiving and transmitting the mail of his own family. The stamp of the Marquette postoffice was therefore placed upon an extremely limited number of letters, while the stamp of the Carp River postoffice on an adjoining lot was being imprinted upon hundreds. The postoffice department finally concluded that the population of Marquette was well nigh extinct but that the population of Carp River was growing rapidly. When the postal department reached this conclusion it notified Mr. Harlow that the postoffice at Marquette would be discontinued.

This constitutes probably the only instance on record where a town of 1,500 inhabitants had two postoffices. The mail of Marquette continued to bear the Carp River stamp for some time thereafter, or indeed until the inhabitants suggested to Peter White the advisability of writing to Washington and having the name of the Carp River postoffice, formally changed to Marquette. This was later done, and Peter White continued in office as postmaster altogether for twelve years.

CHAPTER VII.

FIRST LAKE SHIPMENT OF IRON ORE.

THE pioneers in the iron industry in the peninsula had little money.

There was no influx of eastern capital to help them over the periods of depression. They were compelled to take all the knocks that adversity had to administer, and some of them were pretty severe. The weaker failed; but those who had faith in the ultimate development of the mines gripped a tighter hold and hung on. Men placed in crucibles of fire come out either heroes or villains. The cruel process develops some and destroys others. The struggle certainly bred a race of hardy men and a few of them were even great. Peter White, the boy, had the advantage of association with those men, and could not fail to be improved by it.

It has been told that the only method of bringing ore to the lake from the mines was by means of sleighs during the winter time. It became apparent that if any considerable business was to be done the means of communication would have to be improved. The average load of a sleigh was 3,600 pounds, or a little less than $1\frac{1}{2}$ gross tons, and it was impossible for a team to make more than one trip a day. Indeed the whole winter's haul rarely exceeded 1,000 tons. Moreover, it began to be apparent that the great business of the region was to be done in the mining and shipping of ore, and not in the manufacture of blooms. Among the men attracted to the peninsula was Heman B. Ely, who, as soon as he saw the deposits recognized the need of a railway. He approached both the Cleveland and Jackson iron mining companies upon the subject, and in November, 1851, drew up an agreement wherein he agreed to build a railway from Marquette to the Jackson and Cleveland mines in consideration of receiving the carrying trade of both companies at certain reasonable rates of toll. The companies agreed to pay \$1 per ton for the transportation of ore over the road during the first two years and 50 cents thereafter until the amount reached an annual total of 70,000 tons, when a graded rate gradually diminishing to 30 cents, when 125,000 tons per annum had been reached, should obtain. This road was to be known as the Green Bay & Lake Su-

No. 1

Wm. White, Merchant, 1852

Shipped, in your vessel, named the Appennine, on board
and destined for a port in the Chilian or
and the
named P. White as Master and
agent on board, 21st June 1852, the property contained below, for
service on the port or at the port of Lima (the wages of seafarers, men, fore and aft)
and to the Port, in order to the wages, as to their amount, as to the payment by whom of the
and charges in Chilian. It is hereby agreed by the said Master that it is paid and paid of the
a w. pattern, printed, London.

contract for carriage of wool, sheep, lamb and lamb over & as, as no many goods, on conclusion
of our having sighted the said Port by said Master
In witness whereof, The Master & other authorized officers and I have both affixed to
this Contract and date, and of which this agreement, the same to stand valid

Peter White to Sol. White, Esq.

Wm. White I do acknowledge the
Mr. George Hatherly
Eric Lee
John M. Y.
G. C.
John R. C.
James Mac-
Duffie

- Witness of this

FAC-SIMILE OF BILL OF LADING OF THE FIRST SHIPMENT OF ORE. THIS BILL OF LADING IS IN
PETER WHITE'S HANDWRITING.

perior Railroad Co., a title which sufficiently indicates that Mr. Ely had in mind its extension to that other ore outlet upon Lake Michigan. Mr. Ely, however, had difficulty in enlisting capital in the enterprise. Men with money looked coldly upon the project of building a railroad in a wilderness and the undertaking consequently lagged. Money was, indeed, so stringent that upon one occasion in 1852 Mr. Ely had to sell some of his provisions in order to obtain the means wherewith to get out of the country. This act caused Mr. Tower Jackson, the first mining agent of The Cleveland Iron Mining Co., to deliver a philippic against steam railroads in general, and to declare that a plank road was precisely what the region needed. He maintained that a plank road would promote agriculture in that it would be of direct benefit to the farmers and would stimulate ore shipments in that it would provide a means of communication to the mines all the year round. A steam railroad he insisted would merely fill the pockets of eastern capitalists and ruin the iron country. To Mr. Jackson belongs the credit of having first suggested the plank road, now of historic memory.

Meanwhile Peter White performed an important act. He made a bit of history. He wrote the bill of lading of the first shipment of ore that ever left the upper peninsula and of which there is definite record. The shipment consisted of six barrels and was consigned to B. L. Webb of Detroit, by the Marquette Iron Co. It was shipped to Sault Ste. Marie on the steamer Baltimore. This bill of lading has fortunately been preserved, and is now hanging on the wall in the office of Oglebay, Norton & Co., Wade Building, Cleveland, in an appropriate frame. A fac-simile of it is herewith reproduced. There is a report of a little ore having gone prior to this to A. L. Crawford, Newcastle, Pa.

The Cleveland and Jackson companies waited patiently for over a year for Ely to begin the construction of his railroad, and perceiving no signs of any movement on his part, undertook jointly the construction of a plank road from the lake to the mines. This was a considerable undertaking and was prosecuted with as much vigor as any undertaking could be which was nearly 1,000 miles removed from the supervision of the home office and which had to be built under adverse financial circumstances. Director after director of the Cleveland and Jackson companies visited the iron region to superintend the work and the most energetic of all was Dr. Morgan L. Hewitt, the first president of the Cleveland Company.

Another undertaking which like the railroad seemed almost a dream was the construction of a canal around the rapids of the St. Mary's river.

connecting Lake Superior and Lake Huron. It was a dream because it had been discussed for years and seemed no nearer realization than in the beginning. There was absolutely no sympathy in Washington with the enterprises of the peninsula. Daniel Webster's declaration, that never would he vote one penny to bring the bleak, barren, rocky and uninhabitable shores of California one step nearer Boston, was on a par with a similar declaration of Henry Clay, who, in discussing the project to build a canal around the rapids of St. Mary's river, to use his express language, said that it was "a work beyond the remotest settlements in the United States, if not in the moon." These men were great, but they had no knowledge of what they were talking about. The discovery of iron, however, following that of copper, brought its commercial importance more clearly before Congress. The iron pioneers had sent John Burt to Washington to lobby for the measure. In 1852 Congress granted to the State of Michigan 750,000 acres of land for the purpose of aiding in the construction of a canal around the falls of St. Mary's river, and in consideration of it a number of gentlemen undertook the construction of the canal, as will be related shortly.

In May, 1853, the Marquette Iron Co. gave up the ghost and Dr. Morgan L. Hewitt moved his small family to Marquette—two most important events in the life of Peter White—for through the first he became connected with the Cleveland Company and through the second he met Ellie Hewitt, Dr. Hewitt's daughter. The Marquette Iron Co. had had a hard time of it. Mr. W. A. Fisher, the capitalist of the company, gradually lost heart when he found that the Cleveland company had really a prior right to the claim and his support for two years had only been lukewarm. It was a constant drain upon his resources, with mighty slim chances of any return, and he welcomed the opportunity extended to him by the Cleveland company to reimburse him for the improvement which he had made. Indeed the Cleveland company exhibited the utmost generosity toward its rival. It purchased the assets of the Marquette company and incidentally purchased Peter White, who was keeping the store for the Marquette company. All the stockholders of the Marquette company were satisfied, with the exception of Graveraet, who recognized in it the bursting of his industrial bubble. Included in the assets of the Marquette company was the lease for the undivided one-half interest in the Lake Superior location, which Graveraet had secured from Burt. Graveraet insisted that he had never received any consideration for this interest, and that it was no part of the Marquette company's property. He claimed it as a part of his individual estate, which the Marquette company, not being an incorporated body, had no right to transfer, and his contention was sufficient to give the Cleveland company considerable concern, though it was later effectually quieted by Peter White.

CHAPTER VIII.

FIRST USE OF THE ORE IN PENNSYLVANIA AND OHIO.

IT has been related that Peter White shipped six barrels of ore to B. L. Webb, the secretary of The Jackson Iron Co., in 1852. It might be well to follow these early shipments and trace them through the furnaces of Ohio and Pennsylvania because they certainly constitute the first use of Lake Superior ore in a blast furnace. In September, 1853, the Cleveland company shipped to the Sharon Iron Co., Sharon, Pa., 152 tons of ore for use in its blast furnace. It took four vessels to move the ore from Marquette to Sault Ste. Marie, where it was portaged over the falls. It was landed at Erie, Pa., and sent by canal to Sharon. The first boat load was delivered at the Sharpsville furnace, owned by David and J. F. Agnew. Describing the event David Agnew wrote:

"The ore was used in the furnace partly alone and partly in mixture with native ores and the experiment was highly successful, the furnace working well and producing an increased yield of metal, which was taken to the Sharon Iron Works and there converted into bar iron and nails of very superior quality. The second boat load was also brought to Sharpsville, but having been intended to be left at the Clay furnace, owned by the Sharon Iron Co., was returned and used at the establishment."

General J. P. Curtis, president of the Sharon Iron Co., wrote the following letter to the Cleveland Iron Mining Co. concerning the test:

"As you are anxious to hear the result of our test of Lake Superior ore in a blast furnace, I hasten to give it to you. It was fully successful, more than we asked for. We worked the furnace for several days on Lake Superior ore entire, no mixture whatever with it, and yielded fully 80 per cent of metal per ton. We have not tried the metal, but it looks very well and there is no doubt of its quality. This settles the question as to the matter of converting the ore and calls for a road at once. There are furnaces now built on the canals, on the Cleveland and Erie, to use all the ore that we can mine the first year and there should be no delay in pushing our road and dock."

It was indeed the very circumstance of this initial success that changed the destiny of the old plank road. It was decided to convert it into a strap railroad at once and the rails were accordingly sent up from Sharon.

Fierce has raged the controversy as to whether these early shipments were really successfully smelted as far as furnace practice is concerned. The iron produced was of good quality, but it left the furnace in a bad state. It must be remembered that the blast furnaces of those early days bore little relation to the blast furnaces of today. Mr. Frank Allen, the manager of Clay furnace, has always insisted that the initial working of Lake Superior ore at the Sharpsville furnace in 1853, was not a success. In a letter to the Sharpsville Advertiser he wrote:

"On the last day of November, 1853, one of the proprietors of the Sharpsville furnaces said to me that they had tried more experiments with that ore than had been profitable and that they would never put another pound of it into their furnace. The same day Samuel Clark boated a load of the ore from the Sharpsville furnace to the Clay furnace landing. We put it through the furnace and sent the product to Sharon. The next season all the Lake Superior ore left over at Sharpsville furnace was sent over to us and during the years 1854-55 and until August, 1856, we had used in all about 400 tons of Lake Superior ore, some of it alone but most of it mixed with other ores and up to that time the working of it was not a success. In October, 1856, we gave Clay furnace a general overhauling, putting in new lining and hearth, and made material changes in the construction of the same, put her in blast late in the fall and in a few days were making a beautiful article out of iron from Lake Superior ore alone, and this was then considered to be the first real and successful working of Lake Superior ore in a blast furnace."

When Mr. David Agnew saw this article in the newspapers he replied as follows:

"I have no desire to engage in newspaper controversy with Mr. Allen in regard to the first successful working of Lake Superior ore in the blast furnace; still I cannot let his article pass unnoticed. I should have replied sooner but wished to hear from my brother, J. P. Agnew, before doing so. My brother and myself were the proprietors of the Sharpsville furnace at the time referred to. He writes:

"I notice Mr. Allen's article published in the Sharpsville paper and am greatly surprised at its contents and am sorry to have to contradict his statements. All the circumstances connected with that event (the working of the ore) are as fresh in my memory as if they had transpired within

the last month. By arrangement with Gen. Curtis, president of the Sharon Iron Co., and at his desire, as well as our own, a quantity of the ore (I think about thirty tons) was ordered, which, however, cost about as much as pig iron was worth at the time, being subject to a long wagon transportation. This ore we worked in our furnace very satisfactorily. Indeed our furnace never gave better results than while working this ore. We commenced by charging one-fourth Lake Superior and three-fourths common ore. The iron thus produced was worked at the Sharon rolling mill into boiler plate, bar iron, nails, spikes, etc., samples of which were shipped to New York and there submitted to the usual tests, and declared to be of the very best quality.'

"So much for my brother's statement. In regard to the shipment of Lake Superior ore from Sharpsville to the Clay furnace, I have to say that the second shipment of lake ore to Sharpsville was in mistake. The Sharon Iron Co., having purchased Clay furnace, wished to work the ore there and directed it to be left at that furnace landing but the boatman by mistake brought it on to Sharpsville, from whence it was reshipped to Clay furnace for the reason stated and that only. Now, in view of all these facts, am I not justified in claiming that D. and J. P. Agnew were not only the first to use, but to use successfully, Lake Superior ore in the production of pig iron?"

Mr. Allen then grew earnest and wrote:

"I have very repeatedly said within the last twenty years that Lake Superior ore was never successfully worked in a blast furnace at Sharpsville, Clay furnace or elsewhere in the Shenango valley until it was done at Clay furnace late in the fall of 1856. And now I repeat it again with emphasis. I know that it was not done at Clay furnace, and will briefly state why I believe that Agnew brothers did not work it successfully at Sharpsville. On the morning of Nov. 30, 1853, the late Gen. J. B. Curtis, president of the Sharon Iron Co., did, at their office in Sharon, and in the presence of Mr. D. Agnew (then bookkeeper for said company) say to me, 'I have this morning sent Sam Clark to Sharpsville with his boat to get a load of that cursed ore and take it to Clay furnace landing, and want you to put it through the furnace and send the iron from it here, that we may have it made into iron and nails, before the annual meeting of our stockholders,' which was soon to be held.

"I replied to him that the road from the furnace to Canal landing had been so badly cut up by hauling over it, and now partly frozen, that it was now almost impassable, and said to him: 'Why not have Messrs. Agnew

put it through their furnace and save hauling both ore and iron over such very bad roads.' Here and then Mr. David Agnew turned from the table on which he had been writing and said: 'We have tried more experiments with that ore than has been profitable, and will never put another pound of it into our furnace,' and I verily believe that they never did use any more of it.

"I then started for home and without stopping at the furnace, rode on to the canal landing, engaged John Buchanan to assist me in placing plank to unload on to, and left him there to help Mr. Clark unload his boat when he should arrive. The same evening I reported to Mr. C. Davis, our founder, that there would be a load of Lake Superior ore at the landing some time during the night, and also that Gen. Curtis' instructions were to put it through the furnace without delay. Here I encountered a very strong opposition, Mr. Davis refusing to have it put into the furnace, saying that it had never been and could not be worked in a blast furnace successfully; that he had blown the Sharon furnace for Mr. Agnew a few years previous; had been at Sharpsville repeatedly since the ore had been received there, and knew all about the success they had had with the small amount worked in their furnace, and finally closed by saying that if Gen. Curtis wanted a boat load of that ore put through Clay furnace he might come and direct the putting of it in himself, and if he stayed until it came out in the shape of pig iron he would stay a long time. I replied that Gen. Curtis' orders must be obeyed, and if the furnace chilled up or was lost on account of using the ore we had nothing at stake and would not be blamed. He said: 'You may feel that you have nothing at stake but I have.' I asked what. He replied: 'My reputation as a founder, and I pride it as highly as Gen. Curtis does his money.' And thus we parted for the night.

"On the 5th of December, 1853, we commenced using the ore, put in a few charges mixed with native, and then charged with Lake Superior ore alone. Were glad when it was all done. Mr. Davis and I were well satisfied that if there had been much more of it the furnace would have been in a bad condition. It took several days to get the hearth clear as it was. We sent seventeen tons of the iron to Sharon. I also attended a meeting of the stockholders above referred to, and there, in the office of the company found a large amount of iron, nails and spikes of a superior quality, said to have been made from the Lake Superior iron we had sent there a few days previous. During the years 1854-55 we worked several hundred tons of Lake Superior ore but not successfully. When charging

the furnaces with Lake ore alone we could run but a few days, and then resorted to mixing; and as regards the quality of iron made it was not considered good for forge purposes, which I doubt not Mr. D. Agnew recollects. I well remember of once receiving an order from the Sharon Iron Co. for a boat load of our best mixture and we shipped it by Capt. Pat Sullivan, selecting the very best we had. The next day while eating dinner the captain called at the door, and for a few minutes it was nothing but 'them d—d fellows at the mail, and Gen. Curtis and Mr. Agnew and that d—d iron.' He handed me a letter from Mr. Agnew, the contents of which as near as I recollect, was this: 'Mr. Allen—The iron you sent us is not suitable for our purpose. We sent it back. Either have it unloaded at the landing or send it to Erie as you think best.' Having plenty of the 'd—d' mixture on hand we gave Pat a new shipping bill and he went on his way rejoicing.

"In the fall of 1856 at the request of Mr. Samuel Kimball, president of the Sharon Iron Co., I fitted Clay furnace up with a new lining based upon my experiments of three years back. We blew in about the last of November, and immediately after the statement of our first week's work had been received by Mr. Kimball at Cleveland, Mr. Garrett and Dr. Hewitt came to Sharon. Gen. Curtis brought them to Clay furnace in his carriage and the first thing Mr. Garrett said to me was, 'Mr. Kimball has shown us your weekly statement about the working of lake ore in this furnace, and we don't believe it is correct. We don't want to be humbugged any more about this matter and will stay with you until we are satisfied that you are not trying to fool anybody.' They did stay until they were satisfied that all was right.

"In a short time many of the eastern stockholders of the Sharon Iron Co. paid us a visit, the late Major M. C. Trout with them. I cannot name all of them now, but among them was Mr. Oliver of Philadelphia, Shelton of Connecticut, Greer, Hix and Cook of New York. They remained with us one day, and were wild with excitement, as well they might be. The great problem had been solved. Lake Superior iron ore for the first time had been successfully worked and the large amount they had invested in it would not be lost. And how was it with us poor devils at the furnace who had been working for three long years to accomplish this great and grand result. We felt like new men. Instead of cursing Lake Superior ore and wishing it all safely landed in hell, or some other seaport, the more that was sent us the better we were pleased.

"And now a few words in reply to Mr. Agnew's article and I have

done. He said he worked thirty tons Lake Superior, mixed with native ore, and while so doing changed the burden four times and was satisfied with the result. I would like to know why he did not use more of it—at least the balance that he had burnt and fitted ready to put into the furnace. Was this a mistake to have a large amount burnt when there was but a few tons to be used? If so, to say the least it was a foolish waste of labor and fuel. And right here I would say to J. P. that there are men living that worked at the furnace while this puny test was being made whose recollection of the success attending it differs very materially from his.

"The fact is that previous to November, 1856, all furnace men that had tried Lake Superior ore were in the fix the family were that ate the cat. When they had taken a mouthful apiece all round they wanted no more. I cheerfully accord all credit to the Messrs. Agnew for having worked thirty of the first 429 10-10 tons of Lake Superior ore shipped into this valley, yet contend that there was not enough used (and it was mixed with other ore) to satisfy any practical furnace men that the test thus made had been thorough and successful. What! Thirty tons if used alone would not fill a furnace half full, and not more than enough to last one of our furnaces fifteen hours when in full blast. Is there a man on earth that would invest his money in building a furnace for the purpose of working ore that had been thus tested and thus only? No. You might as well put it through a coffee mill, then into a pepper box, shake it over the trunnel head once a day for a week, and then come to him and say that the ore had been worked successfully in a furnace and the iron made from it A No. 1."

The extended remarks of Mr. Allen caused Mr. David Agnew to make the following reply:

"I presume Mr. Allen will admit that the first attempt to use Lake Superior ore in a blast furnace was made at the old Sharpsville furnace. If so, the only matter in controversy is: Was the result of that trial successful? My brother, who was in charge of the business, was present at the time and had therefore the best means of knowing the facts, says: 'This ore was worked in our furnace very satisfactorily. Indeed our furnace never gave better results than while working that ore,' and proceeds to state how the ore was used, the quality of the iron, etc. Does this indicate failure? But Mr. Allen says that in the presence of himself and Gen. Curtis I acknowledged the experiment to be a failure. Admitting that such an interview took place, of which I have no recollection, still Mr. Allen must have entirely misapprehended the language used on that occasion. I

believed then and have ever since believed that it was a success. That I should have asserted the contrary is not at all reasonable. The great cost of the ore, as explained in a former communication, was of itself a sufficient reason for not wishing to continue the experiment any longer than to prove its adaptation to furnace use and to judge of the quality of the iron. Both these objects were demonstrated to our entire satisfaction. We could not have continued the experiment if we had desired to do so, from the fact that the second shipment of ore was intended to be used at Clay furnace, owned by the ore company, and was consequently reshipped from Sharpsville (where it was brought in mistake) to Clay furnace for that purpose. Mr. Allen ridicules the idea that any correct opinion could be formed of the working, or of the metallic qualities of the ore from the small quantity employed. I readily admit that such a quantity of ore in one of our present furnaces, yielding thirty to forty tons per day, would afford no proper test of its quality in either of these respects but the trial under consideration was made under entirely different circumstances.

"The average product of the Sharpsville and other furnaces in this valley at the time of this experiment was only about four tons per day. Thirty tons of Lake Superior ore mixed with the common ores, as explained in my last, was sufficient to produce at least thirty tons of metal, and allowing one or even two tons per day additional for the increased percentage of iron in the mixture would supply the furnace for five or six days. Will Mr. Allen say that such a trial affords no ground on which to base a correct opinion of the result? I have no desire, nor is it necessary that I should impugn the veracity of my worthy friend. He evidently got a wrong impression in the beginning, hence the error into which he has fallen. Having, as I think, presented sufficient evidence of the fact that my brother and myself were the first to use, and to use successfully Lake Superior ore in the production of pig iron, I now take leave of the subject with the kindest feelings for my respected but mistaken competitor for that honor."

DAVID AGNEW.

Mr. Allen concludes the controversy with the following letter:

"If our respected friend, D. Agnew, Esq., thinks that his last article will satisfy any practical furnace men that the working of Lake Superior ore in the old Sharpsville furnace under his administration was a success, he is mistaken. We, at Clay furnace, succeeded much better with the first boat load, sent us in December, 1853, as we worked enough of it alone without mixing other ores, to produce fully seventeen tons of iron, and while so doing, did not have to cast over the dam. And yet we know that

neither of the furnaces in the shape they were then, could have been run on Lake Superior ore alone two days in succession successfully. To prove this fact we have only to refer to Mr. Agnew's article. He says it took them six days to put thirty tons through the Sharpsville furnace, making about four tons of iron per day. Now why was it that this same old Sharpsville furnace in 1859, under the management of John J. Spearman, Esq., and being no larger or better than when Agnew owned her, was making from twenty to thirty tons of excellent iron per day (as much in a day as Mr. Agnew could make in a week). It was simply this: Mr. Spearman in having her fitted made the changes in the shape of lining, hearth and bosh, that we adopted at Clay furnace in 1856 when Lake Superior ore for the first time, was successfully worked in a blast furnace without mixing.

"As stated in a former article we wish to accord to Mr. Agnew all honor for having worked thirty tons Lake Superior ore mixed with native ore, and that, too, before any Lake Superior ore had ever been received at Clay furnace, even if it did take six days. And we now say that if it had taken six months to get this trifling amount through their furnace we would still be willing to give them all praise for having done it. We spent three years at Clay furnace experimenting with lake ore, and notwithstanding the fact that during the whole of that time we succeeded much better than Mr. Agnew ever did at Sharpsville, we never worked it successfully until the fall of 1856."

The following letter corroborative of Mr. Allen's contention was received from J. J. Spearman, owner of the Sharpsville furnace:

"The first Lake Superior ore worked in the Shenango Valley was at the old Sharpsville furnace, then operated by D. and J. P. Agnew, only a small quantity was used in a mixture of native ores. The first Lake Superior ore worked alone was at the Clay furnace (now abandoned). This furnace was owned by the Jackson Iron Co., and managed by Mr. Frank Allen. This furnace was the first in the Shenango Valley, and as far as I know in the United States to use alone and successfully work any large quantity of Lake Superior ore."

It is quite well authenticated that the first person to manufacture iron from Lake Superior ore in Ohio was Charles Howard, proprietor of the Falcon Iron Works at Youngstown. Howard's first order was for 500 tons at \$8 per ton and was placed with The Cleveland Iron Mining Co., in August, 1856. It was shipped to him via the canal. Howard had estab-

lished the Falcon furnace a few years previously. Describing his experience in later years in a letter to Mr. J. H. Sheadle, secretary of the Cleveland Cliffs Iron Co., he said:

"In 1847 or 1848 a company of Welshmen built a furnace in Summit county, Ohio, not far from a place known as the Old Forge, near Akron,

Ohio, and expected to get the coal from a mine that was being worked a little near Tallmadge, five miles from Akron. They put up a good stack and good machinery, but after several trials found out that the Tallmadge coal would not do for smelting, so they quit, gave up the whole thing as a failure, leaving machinery and everything standing there. I bought the whole thing for a small sum, took it down and moved it to Youngstown, built the Falcon furnace and used the Welshman's machinery and everything else I could use. I had saved up \$700 of my salary, and I thought I was rich enough to be an iron master on my own account. I found out later that \$700 was not anything like enough money to build and run a blast furnace;

so after running one year I sold out to James Wood & Co. of Niles, Ohio, went to Massillon, Ohio, and built the first Massillon furnace for Marshall Wellman, who was president of the Massillon bank. Later I returned to Youngstown and bought back the Falcon. I rebuilt the stack and made improvements of different kinds but the iron made from the lean ores from about Youngstown was not just what was altogether suitable for the Pittsburgh rolling mills in making iron and nails. That being the principal market ore that would mix with the native ore and improve the quality of the pig iron was much desired and sought after. So in 1856 when I saw a notice in the Cleveland Herald that the Cleveland Iron Mining Co. had received a cargo of Lake Superior ore and was prepared to supply blast furnaces and rolling mills on reasonable terms I made a trip to Cleveland in order to see the ore and get some idea of what it would yield and what it would cost delivered in Youngstown. I met with the



CHARLES T. HOWARD.

president and with Mr. Tuttle, who was secretary, and found them to be anxious to have the furnaces commence the use of their ore. They said they were prepared to furnish a steady supply, so I made arrangements with them to send me a few carloads at once. Let me say that the idea prevailed at that time among the furnacemen that Lake Superior ore could not be smelted with raw coal; that the ore would have to be roasted first and the coal made into coke before using. But there was nothing of this necessary. It worked nicely from the start, improving the quality of iron by giving it body and very much increasing the output of the furnace per day and making the cost per ton for labor less, and the iron more salable as well."

CHAPTER IX.

PETER WHITE AND HIS DOG SLEDS.

THE work of converting the plank road into a strap railroad and the growing fame of the iron hills had caused quite an influx of people so that Marquette was beginning to have quite a respectable number of inhabitants. These recruits saw the last boat depart and the winter close in upon them with feelings of uneasiness, which gradually gave way to uncontrollable impatience when they realized that they were not going to get any mail during the entire winter. It was the old story over again. In fact the last mail was delivered on Oct. 17. On Jan. 8, 1854, the people could stand it no longer and sent for Peter White to attend a mass meeting which they had called. Intense and fervent speeches were made, but all had the same ending—that Peter White should go for the mail. No one else was thought of. He was regarded as some mysterious genie who with a dog and sled could penetrate the trackless wilds and bring the precious mail out of its hiding place. So with six Indians and three dog teams of three dogs each, Peter White again went after the mail. Peter and the Indians took away nearly 1,000 letters to be posted. They plunged into the woods at the mouth of Carp river, but found snow-shoeing tedious work, as the snow was very soft. On the seventh day, while making slow work of it in the deep, wet snow which covered the ice of Cedar river, near Green Bay, they espied in the dim distance what appeared to them at first like five immense loads of hay slowly crawling toward them. A little later the strange spectacle came more definitely into view and was seen to be five double teams with five sleigh loads of United States mail, bound for Lake Superior places, via Escanaba and Marquette, in charge of Daniel M. Whitney, of Green Bay. This mail weighed between seven and eight tons. It may be imagined that the meeting of these two caravans was most joyful.

Mr. Whitney said that the postoffice at Green Bay was filled to overflowing with mail and that the postmaster at that place had taken the most doubtful responsibility of employing him to make one trip. Whitney

had engaged ten men, Indians and French, to help him. Peter White took charge of the party, and loading up his dog sleds with the contents of one of the sleighs he sent the entire party, dogs, sleds, French and Indians on to Escanaba and Marquette while he and Mr. Whitney drove in the sleigh which had just been unloaded to Green Bay.

It might be well to follow the mail before following the immediate adventures of Peter White. After great tribulations, delays and troubles, the mail reached Marquette on Jan. 21, which was really very good time considering the fearful conditions of the roads, which were made almost impassable by melting snows. The dog teams were dispatched ahead of the others with the letter bags. Nearly half the population of Marquette went down as far as the Carp river to meet the mail and to help carry it into town. As the savages of some of the southern climes are wont to gorge themselves with food to unspeakable excess and then sleep for days thereafter, so did the people of the little village give themselves up to a riot of reading. No work was done for two days. The paper mail came a week later but it was so worn and wet that most of the addresses were undecipherable. However, that was no matter, as perfect communion prevailed in the ownership of newspapers in those days.

Meanwhile the subject of our story was holding a heated argument with the postal authorities and with Gen. Lewis Cass, who was Michigan's representative in the United States Senate. On his arrival at Green Bay, he found that Mr. Hicks, the postmaster, had on hand twenty-four bags of mail matter for Lake Superior. Each bag held four bushels. He found, moreover, that the mail was accumulating at the rate of six bushels a day, and the Green Bay postmaster was in a quandary as to what to do with it. He had employed Mr. Whitney to make one trip to Marquette at enormous cost on doubtful authority.

"Something's got to be done," said Peter, who had before him at all times the frenzied population of Marquette, and who did not want to return without the message that he had arranged a definite schedule for the mail.

The nearest telegraph point was Fond du Lac and thither he journeyed to wire Senator Cass. The extraordinary number of words which the young man used (for telegraph tolls were very high then, the vigor of language, the fact that he transmitted the major part of the resolutions adopted by the citizens of Marquette setting forth the immense value of the iron and copper mines and denounced in unmeasured terms the apathy of Gen. Hester L. Stevens, their representative in congress, to the needs

of the community, together with the withering scorn and invective directed against the postoffice department, convinced Gen. Cass that an insurrection was imminent in the peninsula, and he hastened at once to the postmaster general with the dispatch from his impetuous young constituent. But even this was not enough for Peter. He bombarded Cass for two days with telegrams so impudent that he would not dare today to send them to anyone. Gen. Cass replied that he appreciated the importance of his mission and told him that he had written him at Green Bay and to await the receipt of the letter. In three days the letter came inclosing several from the first and second assistant postmasters general, informing him that the Hon. Henry Hart, a special agent of the postoffice department at Adrian, Mich., had been wired to meet him at Green Bay. The telegraph operator sought to beguile away the interval of time by presenting Peter with a bill for \$66. Peter was ever a thrifty lad and the size of this bill was to him appalling. He supposed that he had contracted an expenditure of about six dollars. He found some, though not a total consolation, in the fact that it would not have to come out of his own pocket.

In his frequent visits to the postoffice at Green Bay Peter had noticed that the postmaster had accumulated a lot of empty canvas mail bags, perhaps 200 in number, and they were folded double and piled up like stove wood in neat piles in the woodshed attached to the postoffice. The postmaster consented that Peter should try any desired experiment with them provided he did not injure them. So Peter diligently employed the days while awaiting the arrival of Special Agent Hart in making packages of these bags by stuffing them into other bags leaving a vacuum of about 18 in. in the top of each package of bags into which he closely packed mail matter addressed to Lake Superior points. He then carefully closed them with the puckering strings, leaving an opening on top of each bag of 5 or 6 in. with the addressed side of each paper upward, so that the merest look would convince anyone that that was a bag of mail for Lake Superior. Then these deceptive bags were stacked, end on end, in tiers three stories high nearly reaching the ceiling in the back room of the postoffice and woodshed. Thus the thirty odd bags of mail had grown into 120 large bags of mail. When the special agent arrived in the course of four or five days, he surveyed the accumulation of mail with wonder and saw that an emergency existed. He surveyed the accumulation however, upon a full stomach, for Peter was careful to meet him at the stage and to escort him to the Astor House, where a supper of oysters and champagne was given to him before proceeding to business. Peter was very polite indeed to Mr.

Hart. The special agent at once approved the temporary contract that had been made with Mr. Whitney for the one trip and authorized a new contract for one trip a week from Green Bay to Lake Superior. Peter continued to entertain him for two or three days thereafter with such princely liberality that Mr. Hart made an order increasing the service to three times a week before he left. The peninsula never thereafter lacked for mail facilities and Peter White's return to Marquette was one of triumph.

CHAPTER X.

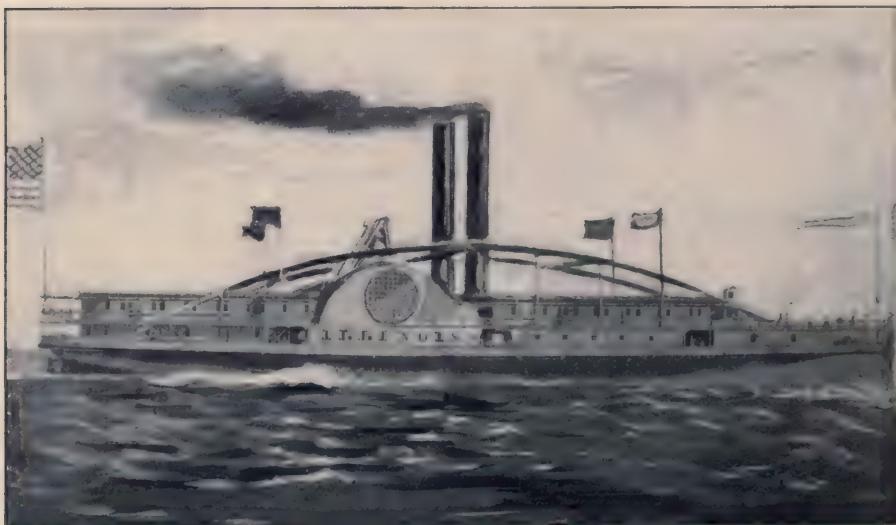
BUILDING THE OLD STRAP RAILROAD.

MEANWHILE Peter White was doing a lot of thinking. He saw the gradual unfolding of the industrial panorama and he began to perceive opportunities for making money on his own account. He was shut out from making iron ore investments, for that required capital and he had only his savings. He possessed however, the natural instinct of a merchant. He was essentially by disposition a buyer and seller, and resigning his position with the Cleveland company he opened a store of his own. He conducted it with profit but sold out when he saw a better opening in the insurance business. He has always had the eyes of a hawk for opportunity. Then he began the business of banking in a small way. When W. J. Gordon, afterward a well known capitalist and philanthropist of Cleveland, visited the iron region for the first time in 1854, having joined the Cleveland company, he was attracted to Peter White instantly—and W. J. Gordon could set through a cast iron vault. To take a man's measure at once was an instinct with him. He was a truly great man, many-sided, bold and complete. He grasped the nature of the iron deposits, their marvelous extent and future influence almost before any man did. He saw, too, that Peter White was as sensible a young man as lived in that region and he came to rely upon his judgment. He never submitted a proposition to his directors when he was in the peninsula that he did not first submit to Peter.

But what days of stress and turmoil they were. The Cleveland company permanently abandoned the making of blooms when the forge burned down in December, 1853, and devoted itself to the mining and shipping of ore. There were approximately 1,000 tons of ore on dock when the season of navigation opened in 1854. The winter had been a bad one for hauling the ore in sleighs. The average load was a gross ton and only about fifteen tons could be brought down per day. The tariff for the haul from the mine to the lake was \$3 per ton and the price of the ore on dock at Marquette was \$8 per ton. The cost of mining was 50 cents per ton—a magnificent profit, indeed, if any volume of business could be transacted. Nearly

the whole of the 1,000 tons of ore on dock when navigation opened in 1854 was taken by the Forest City Iron Co. It was wheeled aboard the propellers Sam Ward, Napoleon and Peninsula in barrows and dumped upon the deck. At the Sault it had to be unloaded and carried over the portage, where it was again wheeled upon vessels and taken to the lower lake ports.

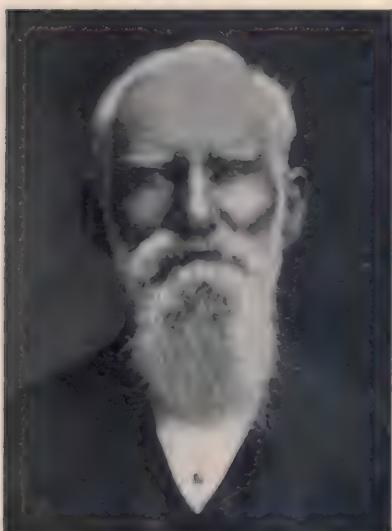
In the business of portage, Sheldon McKnight and his old gray horse and French cart occupy a picturesque and commanding position in the history of the Sault. This faithful animal had the distinguished honor in 1845 of hauling every pound of freight that passed to and from Lake Superior, a point of special significance when it is borne in mind that today the commerce which passes this point is far greater than that which is



THE SIDE WHEEL STEAMER ILLINOIS.

exchanged between New York and Liverpool; when the transfer of commodities to and from this great father of waters, which was well within the capacity of this old gray horse to handle, has grown within the lifetime of the hero of this sketch to dimensions more than three times as great as the commerce which annually passes through the Suez canal. The discovery of the mineral deposits, however, brought such a flood of prospectors and miners that McKnight and his old horse had more than they could do to handle the material. So McKnight with J. T. Whiting, built a strap railway about a mile long around the rapids in 1851. He placed a number

of cars upon it and drew them with horses and this was the first railway of any kind to be built in the upper peninsula of Michigan. What with the transit of iron and copper down with machinery and provisions of all kinds up, McKnight did a flourishing business and the Sault became a distributing center. The thought of a canal at the Sault was gall and wormwood to McKnight. He fought the project bitterly, opposing it at every step, declaring that it was unnecessary and that it would kill the Sault. This last argument found a responsive chord in many a breast for a number of men gained their livelihood in the rehandling of freight at that point. The project of the canal was not advanced by any of the Saulteurs.



CAPT. J. H. ANDREWS.

The strap railroad from Marquette to the mines was not ready for use during the winter of 1854 and the ore was carried down in sleighs as usual. The projectors called it the Iron Mountain Railway Co. Heman P. Ely was busily engaged also in the construction of his railroad, which he called the Iron Mountain Railroad Co.—a distinction in terms sufficient to confuse anyone who endeavors to trace the history of the peninsula from the very manuscript of those who made it. However, they were distinct corporations as was quite apparent at the time for Ely served an endless number of injunctions upon the contractors and workmen who were engaged

upon the Iron Mountain Railway. There were innumerable disputes regarding the rights of way and things finally got to such a pitch that the court appointed Charles T. Harvey as arbitrator to determine where each roadbed should be laid. Nerves were at the highest tension for work upon the canal at Sault Ste. Marie was progressing rapidly and everyone wanted the line of communication to the mines to be finished first in order to care for the heavy shipments that were bound to follow.

But, alas, notwithstanding the heroic efforts put forth, the canal was opened before the strap railroad was finished. It was an era of the wildest excitement in the peninsula. Cholera had broken out once and hundreds had died in building the canal, but now the great work was done. Water

was let into the canal on April 19, 1855, and on June 18, it was opened to commerce with John Burt as its first superintendent. The steamer Illinois was the first vessel to pass up and the Baltimore the first to pass down on the day of the opening. The North Star followed up bound. Then the schooner Freeman, Capt. J. H. Andrews master, passed up and was the first sailing vessel to make the complete trip from the lower lakes into Lake Superior. The North Star was the first vessel to reach Marquette through the canal, having made the trip from the Sault in a little less than eight hours.

When the trim hull of the North Star shot into Iron Bay the people of Marquette nearly went wild. She signified so much to them. She had come as a deliverer. She had burst the bars that had so long caged the peninsula and was the first to bring the message of emancipation. Her name, too, North Star, was so appropriate for this great northern sea. The people on seeing her gave vent to a mighty outburst of patriotism. Dr. Morgan L. Hewitt was deeply stirred, as a letter written by him upon the occasion shows. He ran up the American flag upon the city flag-staff and every man who had a gun fired it off.

Heman E. Ely suggested that appropriate exercises be held on the Fourth of July to celebrate the opening of the canal which meant so much to the iron county. Mr. Ely, who was a patriotic and generous man, bore the expense of the entire celebration, providing music and fireworks and refreshments for the entire village. Speeches were made by Dr. J. J. St. Clair, agent for the Cleveland Iron Mining Co.; Mr. George King, of the Jackson Iron Co., and Mr. Ely who was the principal orator of the day. Peter White followed the speakers by merely reading the Declaration of Independence. Ely's address was praised by everyone except William O'Brien, an Irishman, who had helped himself quite liberally to punch. He was heard describing the occasion in the following language:

"There was Docther Sinclair; he was the prident of the day and made a tolerably decent spaach, good anuff for any other day but Ford-a-July! Thin there was Misther King, the Jackson Company clark; he made a little talk, good anuff for the childers, but no account for a Ford-a-July spaach. And then Mr. Ealy he got up; he talked about rivers and harbors and railroads an tiligrafs, shtame boats, canals and sich like. Oh, be gobs! it was tadious but I would have called it a fine spaach for any other day but a Ford-a-July, but for that day it was no spaach at all. But I will tell yez who did make a good spaach—it was Mr. Pate White. He got up and he talked like a book. He talked about liberty and aquality and the rights of the min and he was down on King George and the parleymint and sor, he made the bist Ford-a-July spaach of them all."

The Honorable Peter White

P A R T I I

Sault Ste. Marie Before the Canal
Lake Superior Shipping Before the Canal
Construction of the Canal

CHAPTER XI.

SAULT STE. MARIE BEFORE THE CANAL.

SINCE no single act of man has conferred so wide a blessing, industrially considered, on the American people as the construction of the first canal at Sault Ste. Marie, it might be well to set down in detail the history of the site of this splendid achievement. As the story unfolds it will be shown in what manner the locks of Sault Ste. Marie have altered the face of the country; but for the present let us deal with Sault Ste. Marie itself. There are two pictures—Sault Ste. Marie before and after the canal and each differs widely in aspect. To us Sault Ste. Marie is one of the most romantic places in the world.

There has always been an Indian settlement at the Sault. When Nicollet went to Sault Ste. Marie in 1634 he found a permanent Indian town there. Elsewhere the Indians are nomadic; when they have hunted a region out they take down their tepees and migrate, but at Sault Ste. Marie they remained and lived in peace. The reason was that the rapids were always open and accordingly they could fish all the year around. Fish constituted their principal food during the winter season. In 1641 Charles Raymbault and Isaac Jogues held a brief mission at the rapids and called it Saint Mary. In 1661 Radisson and Grosseilliers camped there for a little while; but the permanent settlement is to be dated from the establishment of the mission by Father James Marquette in 1668.*

* Father James Marquette was born in Laon, Picardy, France, in 1637. He began his scholastic career at an early age, ultimately joining the Jesuit order and being ordained a priest. In 1666 he voluntarily gave up the tranquillity of the cloister for the arduous work of the missionary, and joined the ranks of the pioneers of New France, arriving in Quebec, Sept. 20, 1666. In April, 1668, he was dispatched in company with a brother of the order to assist in the Northwest. He established a new mission station at Sault Ste. Marie, near the foot of the rapids, and in 1669 set out to take charge of the La Pointe mission, near the present site of Ashland, reaching it after a perilous journey in September. It was here he conceived the daring idea of attempting the discovery of a great river in the West, of the existence of which he had learned from the Indians. His plan was to go there in the fall of 1670, but was frustrated by a war which broke out between the Hurons and Ottawas one on one side and the Dakotas on the other. The Ottawas finally fled, leaving Marquette with the Hurons. The Hurons resolved to leave La Pointe for the rich fisheries of Mackinac, and there, in 1671, Father Marquette began the mission of St. Ignace. To Marquette's great joy he was then appointed by the Jesuit superior to accompany Joliet, the royal hydrographer of New France, on a tour to extend French

Sault Ste. Marie is the oldest town in Michigan, antedating Detroit by more than thirty years. In 1750 the French established a military post at Sault Ste. Marie for the purpose of preventing the English, as far as possible, from obtaining a foothold on Lake Superior. When Alexander Henry visited Sault Ste. Marie in 1762 he found it to consist of a fort and four houses. The fort was even then in a state of abandonment, the French having evacuated it in 1760 after the surrender of Canada to Britain. The village was French and Indian until the Jay treaty and the session of 1796.

Sault Ste. Marie has had its captains of industry and of romance. Its great captain of romance was John Johnston. He was an Irishman of noble birth. He was born in Antrim county, Ireland, near the village of Colraine, in 1763. His father was a civil engineer who planned and executed the waterworks at Belfast. His mother was the sister of Mary Saurin, wife of Bishop Saurin of Dromore and also a sister of the attorney general for Ireland. Johnston emigrated to America in 1792 and was received by Lord

territory southward. They left St. Ignace May 17, 1763, passing into Lake Michigan and following its north shore, going down Green Bay to the Fox river. The two travelers ascended the Fox river to its head, crossed by a short portage to the Wisconsin river, and following that stream, reached the Mississippi June 17, 1763. They continued their journey until they reached the mouth of the Arkansas. Returning, Marquette ascended the Illinois river and continued his journey to Green Bay by way of the lake, and reached there late in September. That winter and the following summer Marquette spent at Green Bay. He embarked again March 30, with two attendants, and reached the Illinois on April 8. He observed, however, that his strength was declining, and resolved to return to St. Ignace. He and his two Indian followers coasted along the eastern shore of Lake Michigan until they reached the mouth of the river that afterwards bore his name. Marquette realized that he was dying, and pointing to a rising piece of ground, gave directions for his interment there. On Saturday, May 18, 1765, he died and was buried by the two Indians where he directed. Two years later the body was disinterred by the Ottawa Indians and accompanied by a funeral of nearly 30 canoes, was taken to St. Ignace. Under the supervision of Father Nouvel the body was deposited in a little vault in the middle of the church at St. Ignace, on June 9, 1677.

The second volume of La Hontan's Travels contains a description and plan of the mission at St. Ignace, as it was in 1788, 11 years after Marquette's burial. It was through the aid of this plan that Marquette's remains were discovered 200 years after they were buried and after all trace of the mission had been totally obliterated. The plan plainly indicated that the old mission house must have stood in no place else than at Point St. Ignace. A large cross was known by the French and Indians to have stood on or near the beach of East Moran Bay, and the tradition is that the cross marked the site of the old church that once stood there. On May 4, 1877, nearly 200 years after Marquette's burial, Peter Grondin, occupied in clearing ground on claim 19 for Patrick Murray Jr., discovered a rude foundation 36 x 40 feet, the smaller side facing the lake. This old foundation consisted of flat limestones covered with sand or soil. Immediately adjoining to the west were plain traces of a large building divided into three compartments, and having three fireplaces. The whole plan looked like the mission of the Jesuits, with the church adjoining, the house, sacristy and workshop. The Rev. Father Jacker became deeply interested in it and caused excavations to be made. Pieces of glassware, broken statuary and other indications of a church were found, and near the western end of the cellar, two feet below the ordinary cellar, what was supposed to be a box containing Marquette's remains was found. It contained a number of small pieces of bones from different parts of the human frame, such as the skull, hands and feet, limbs and spine.

Dorchester, Governor General of Canada, to whom he presented such fine letters of recommendation that the governor begged him to remain in Montreal until an opening for him should occur in the British service. Johnston, however, soon joined a trading party bound for Lake Superior. He spent some months at Sault Ste. Marie and then followed Lake Superior as far west as La Pointe opposite the Twelve Apostle islands, where he established a trading post.

It was while trading for furs with Waub-O-jeeg,* chief of the Chippewas that he met the chief's beautiful daughter O-shaw-gus-co-day-way-qua, which translated means Daughter of the Green Mountain. This forest-bred girl seems indeed to have been of singular beauty of person and nobility of character. Johnston with all the impetuosity of his race fell madly in love with her and immediately asked the chief to give her to him in marriage. Waub-O-jeeg refused.

"Your customs are not our customs," he said. "Your ways are not our ways. The white man desires our women only so long as they please the eye."

Johnston protested so eloquently and so sincerely that Waub-O-jeeg finally counseled him to return to Montreal and to remain some months

* Waub O ieeg was the second son of the famous Mongazida. Once when the latter went out to his fall hunt, on the grounds near Sioux territory, taking all his relatives with him (upwards of twenty in number), they were attacked by the Sioux at early dawn. The first volley had gone through the lodges; before the second could be fired Mongazida rushed out and proclaiming his own name with a loud voice demanded if Wabash, his mother's son, was among the assailants. There was a pause, and then a tall figure in his war dress, and a profusion of feathers on his head, stepped forward and gave his hand to his half brother. They repaired to the lodge in peace together, but the moment the Sioux chief stooped to enter, Waub O ieeg, then a boy eight years old, who had planted himself at the entrance to defend it struck him a blow on the forehead with his little war club. Wabash, enchanted, took him up in his arms and prophesied that he would become a great war chief and an implacable enemy of the Sioux. Subsequently this prophecy was accomplished and Waub O ieeg commanded the nation in all the war parties against the Sioux and Ottagamies. He was generally victorious and so entirely defeated the Ottagamies that they never afterwards ventured to oppose him but retired down the Wisconsin river where they settled. But Waub O ieeg was something more and better than a successful warrior; he was remarkable for his eloquence and composed a number of war songs which were sung through the Chippewa villages and some of which his daughter often repeated. He was no less skilful in hunting than in war. His hunting grounds extended to the river Breule at Fond du Lac; and he killed anyone who dared intrude on his district. The skins he took annually were worth \$350, a sum amply sufficient to make him rich in clothing, arms, powder, vermillion and trinkets. Like Tecumseh he would not marry lest it should turn his attention from war, but at the age of thirty he married a widow by whom he had two sons. Becoming tired of his elderly helpmate he took a young wife, a beautiful girl of fourteen, by whom he had six children; of these Mrs. Johnston was the eldest. She described her father as domestic and affectionate. "There was always plenty of bear's meat and deer's flesh in the lodge," she said. He had a splendid lodge 60 feet in length which he was fond of ornamenting. In the center there was a strong post, which rose several feet above the roof, and on the top there was the carved figure of an owl which veered with the wind. This owl seems to have answered the purpose of a flag. It was the insignia of his power and his presence. When absent on his long winter hunts the lodge was shut up and the owl taken down.

there among his own people. He reasoned with him that he would find a girl among the French and English there more to his liking, but Johnston protested vehemently that he would not. Waub-O-jeeg, however, remained obdurate.

"If," said he, finally, "the women of the pale faces do not put my child out of your mind, return in the spring and we will talk further."

Johnston spent a disconsolate winter in Montreal but returned in the spring of 1793 to claim his Indian bride. Waub-O-jeeg gave her to him upon the injunction that she was to remain his wife forever.

Previous to her marriage, according to the Indian custom, she fasted for a guardian spirit. To perform this ceremony she went away to the summit of an eminence and built herself a little lodge of cedar boughs, painted herself black and began her fast in solitude. She fasted for ten days during which time her grandmother brought her water at intervals. At the end of the tenth day she returned to her father's lodge carrying green cedar boughs which she threw upon the ground stepping upon them as she went. When she entered the lodge she threw some more down upon the place where she usually sat and then took her seat next to her mother. During the ten succeeding days she was not permitted to eat any meat nor anything but a little corn boiled with a bitter herb. For ten days more she ate meat smoked in a particular manner and then partook of the usual food of the family.

But notwithstanding the fact that all the presentments which she could conjure up during her ordeal were favorable, she seems to have felt nothing throughout the whole negotiations for her hand but reluctance, aversion and terror. On being carried with the usual ceremonies to her husband's lodge she fled into a dark corner, rolled herself up in a blanket and would not be comforted or even looked upon. It is to the honor of Johnston that he took no advantage of their mutual position but that during ten days he treated her with the utmost tenderness and respect and sought by every gentle means to overcome her fear and to gain her affection. One traveler referring to this incident says that it was touching to see how tenderly and gratefully this was remembered by his wife after a lapse of thirty-six years. On the tenth day, however, she ran away from him in a paroxysm of terror, and after fasting in the woods for four days, reached her grandmother's wigwam. Meantime her father, Waub-O-jeeg, who was far off in his hunting camp, learned that his daughter had not conducted herself according to his advice, and he returned in haste, a two days' journey, to see after her. He whipped her with a stick and threatened to cut off both her ears.

He then took her back to her husband with a present of furs and Indian corn, and with many apologies and protestations of good faith on his part.

Johnston succeeded at last in taming this shy wild fawn and took her to his home at Sault Ste. Marie. When she had been there some time she was seized with a longing to revisit her people. Her husband had lately purchased a small schooner to trade upon the lakes. He fitted the vessel out and sent her with a retinue of his clerks and retainers and in such state as became the wife of "the great Englishman," to her home at La Pointe, loaded with magnificent presents for all her family. Apparently from motives of delicacy and that there might be no constraint upon her feelings and movements he did not accompany her himself. A few months residence amid comparative splendor and luxury with a man who treated her with respect and tenderness enabled her to contrast her former with her present home. She soon returned to her husband voluntarily and lived most happily with him until his death.

Johnston built a large house near the site of the old cemetery on the river bank and just below where old Fort Brady was built later on. The house was elegant for its time and has become historic. It was a long, low, well built log house in a beautiful old-fashioned garden. On the great sideboard in the dining room were arranged many pieces of solid silverware brought from Ireland and always in the same place.

Johnston's sons and daughters were sent away to school but were trained at home to the strict conventionalities of the life in which he had been reared. In 1807 Johnston visited Ireland, taking with him his daughter Jane in whose society he seems to have taken especial delight. He traveled throughout Europe with his daughter completing her education. Several propositions were made to him while abroad to remain. The Duchess of Devonshire, it is related, desired to adopt Jane. Johnston's own friends and relatives joined to keep him among them, but to all influences and persuasion to remain he turned a deaf ear.

When Johnston returned to Sault Ste. Marie from a long stay in Europe, Jane became the wife of Henry R. Schoolcraft, the historian and writer, upon whose Ojibway legends which he was at great pains to collect, Longfellow founded his beautiful poem of *Hiawatha*.

The great business of the peninsula in those days was the taking of furs. Some time between 1796 and 1798 the Hudson Bay Company constructed on the Canadian side a sluiceway for the passage of loaded batteaux around the falls of St. Mary by a gradual incline to a lift lock 38 ft. long and 8 ft. 9 in. wide, with a lift of 9 ft. which was about half the total

fall at the rapids. A tow path was made along the shore for oxen to pull the batteaux and canoes through the remainder of the rapids.* This old lock was demolished in 1814 by United States troops from Mackinac Island under command of Major Holmes when every building in the vicinity was burned. The manner of its destruction was this:

Lieutenant Colonel Croghan of the United States Army was sent to capture the British position at Mackinac then commanded by Colonel McDowell. McDowell learned of their coming and sought the aid of Johnston and his friends at the Sault. Johnston provisioned and equipped a force of 100 Indians and set out to the relief of Mackinac. Major Holmes was sent to intercept Johnston and his Indian band but they evaded him by



THE OLD HUDSON BAY CO.'S LOCK, AS RESTORED BY MR. FRANCIS H. CLERGUE.
taking the unknown route west of Sugar island (now Hay Lake channel) and then through Neebish. When Holmes reached Sault Ste. Marie he was so enraged that those whom he had set out to intercept had evaded his vigilance that he completely destroyed the village of Sault Ste. Marie. He

* The life of this old lock, which was built of dressed timber, was about sixteen years, and it had been completely forgotten that such a channel had ever existed. A few years ago Judge Joseph H. Steere, of Sault Ste. Marie, a man whose recreation has consisted largely of looking up the history of former conditions in the Lake Superior country, found some mention of the channel formerly existing on the Canadian side of the St. Mary's river at the rapids. He called to his aid his fellow townsman, E. S. Wheeler, and they jointly made a search and were rewarded by finding the remains of this, the earliest of the artificial waterways about the Great Lakes. When Francis H. Clergue established the group of industries at Sault Ste. Marie that bear his name, he caused this old lock to be restored in stone, affording a striking object lesson of the commercial growth of a century.

then returned to Mackinac to aid in the assault under Colonel Croghan and was among the number killed in the affair of August 4, 1814. His sword was stolen by the Indians and presented to George Johnston the second son of John Johnston.

At the peace of 1815 Johnston appealed first to the British and then to the United States government to compensate him for his losses in the destruction of Sault Ste. Marie, but met with no success. The evidence showed that Johnston was an officer in the British service during the war of 1812 and it was largely for this reason that the Commissioner of the General Land Office at Washington refused to confirm his claim to a tract of land at Sault Ste. Marie, which had been improved and a number of buildings, including the Johnston residence, built thereon.

The American occupation of Sault Ste. Marie may be said to have begun in 1820, when General Cass went up in batteaux with a force of sixty-six men to establish a trading post. They found the British flag still flying and Cass pulled it down with his own hands and obtained the concession from the Indians to build a fort. At that time there were forty lodges of Chippewa Indians and two hundred inhabitants at Sault Ste. Marie. This treaty of cession, however, would probably not have been obtained had not Mrs. Johnston taken an active interest in it. She perceived that the Indians were suspicious of the newcomers and were even plotting an attack upon the General and his party at night. She acted with the utmost celerity and called the leading chiefs to her for a secret conference at a neighboring rendezvous, where with much directness she enlightened them as to the object of the visit and the ultimate futility of resistance. So great was the respect in which they held her judgment that the chiefs later counseled the gathering braves to disperse and the treaty was signed forthwith. General Cass was fully sensible of Mrs. Johnston's offices and always maintained that the United States Government owed her a debt of gratitude while he himself probably owed her his life.*

* All of the early travelers to the Lake Superior country speak of the charming hospitality of the Johnston family, but probably the most interesting account of all is that written by Col. Thomas L. McKenney, of the Indian department at Washington, who was a joint commissioner with General Cass in negotiating the treaty of Fond du Lac in 1826.

This trip to-day would be regarded as an extremely hazardous undertaking, for upon this occasion Cass and McKenney traveled the entire distance between Sault Ste. Marie and Fond du Lac in canoes. While at the Sault General Cass and Colonel McKenney were entertained at the Johnston homestead, and in a letter to his wife Colonel McKenney described the home as it appeared at that time. He said:

"A personal acquaintance with Mr. Johnston and his family I esteem to be among the most interesting circumstances of my, so far, agreeable travels. Mr. Johnston is in his sixty-fourth year; and Mrs. Johnston in her fifty-fourth. He is feeble and decrepit. A free liver in earlier life he now feels the burden of sixty-four winters to be great, and in addition to the

At the treaty of Fond du Lac, concluded August 7, 1827, one section of land was given to Mrs. Johnston and also one section to each of her children and grandchildren. Part of this land was selected from the highlands of Sugar island, a few miles below the Sault.

Following the death of her husband in 1828, Mrs. Johnston turned her

infirm state of his health, he has the dropsy in one foot and ankle, which at times occasions him great pain, and often deprives him altogether of ability to walk, which he never does without limping, and then by the aid of a staff. His education and intercourse with polished society, in early life, indeed up to his thirtieth year, has given him many very striking advantages over the inhabitants of these distant regions, and indeed fit him to shine anywhere; whilst the genuine Irish hospitality of his heart, has made his house a place of most agreeable resort to travelers. In his person Mr. Johnston is neat; in manners, affable and polite; in conversation, intelligent. His language is always that of thought, and often strikingly graphic. He is always cheerful—even when he is afflicted most. There is something charming in such an autumn. It gives place to winter so gradually as to make its retirement imperceptible. In height Mr. Johnston is about 5 ft. 10 in.—and before he was bent by age and infirmity his figure was doubtless fine. His hair is of the true Scotch yellow, intermixed with gray. His forehead, though retreating is high and full, especially about the brows. His eyes are dark, small and penetrating, and full of intelligent expression. His nose and mouth (except that the loss of teeth has changed the character of the latter some, though his lips have yet great firmness) are well formed, and judging from what is left, and from a portrait which hangs over the fireplace in the drawing room of his residence he must have been very handsome when young.

"Mrs. Johnston is a genuine Chippewa without the smallest admixture of white blood. She is tall and large, but uncommonly active and cheerful. She dresses nearly in the costume of her nation—a blue petticoat of cloth, a short gown of calico, with leggins worked with beads, and moccasins. Her hair is black. She plaits and fastens it up behind with a comb. Her eyes are black and expressive, and pretty well marked, according to phrenologists with the development of language. She has fine teeth; indeed her face, taken altogether with her high cheek bones and compressed forehead and jutting brows, denotes a vigorous intellect and great firmness of character, and needs only to be seen to satisfy even a tyro like myself in physiognomy that she required only the advantages of education and society to have placed her on a level with the most distinguished of her sex. As it is she is a prodigy. As a wife she is devoted to her husband, as a mother tender and affectionate, as a friend faithful. She manages her domestic affairs in a way that might afford lessons to the better instructed. They are rarely exceeded anywhere, whilst she vies with her generous husband in hospitality to strangers. She understands but will not speak English. As to influence there is no chief in the Chippewa nation who exercises it when it is necessary for her to do so, with equal success. This has been often tested but especially at the treaty of cession at this place in 1820. Governor Cass, the commissioner, was made fully sensible of her power then, for when every evidence was given out that the pending negotiation would issue, not only by a resistance on the part of the Indians to the propositions of the commissioner, but in a serious rupture, she, at a critical moment sent for some of the principal chiefs, directing that they should, to avoid the observation of the great body of Indians, make a circuit and meet her in an avenue at the back of her residence; and there by a luminous exposition of their own weakness and the power of the United States, and by assurances of the friendly disposition of the government towards them, and of their own mistaken views of the entire object of the commissioner, produced a change which resulted, on that same evening in the conclusion of a treaty. I have heard Governor Cass say that he felt himself then, and does yet, under the greatest obligations to Mrs. Johnston for her co-operation at that critical moment; and that the United States are debtor to her, not only on account of that act, but on many others. She has never been known in a single instance to counsel her people but in accordance with her conceptions of what was best for them, and never in opposition to the views of the government. So much for the father and mother.

"I will now make you acquainted with some of the children. Of Mrs. Schoolcraft (Jane) you have doubtless heard. She is the wife of Henry R. Schoolcraft, author of travels and other works of great merit, and Indian agent at this place. She is a little taller and thinner but in other respects as to figure resembles her sister, Mrs. McMurray (Charlotte) and has her face

attention to the manufacture of maple sugar on her estate and each year marketed several tons. In the fall she would go with her people in canoes to the entrance of Lake Superior to fish in the bays and creeks for a fortnight, and return with a load of fish cured for winter consumption. In her youth she hunted and was accounted the surest eye and fleetest foot among the women of her tribe. Her talents, energy, activity and strength

precisely. Her voice is feeble and tremulous. Her utterance is slow and distinct. There is something silvery in it. Mildness of expression, softness and delicacy of manners as well as of voice, characterize her. She dresses with great taste and in all respects in the costume of our fashionables, but wears leggins of black silk, drawn and ruffled around the ankles. You would never judge, either from her complexion or language or from any other circumstance that her mother was a Chippewa, except that her moderately high cheek bones, her dark and fine eye and breadth of jaw slightly indicate it; and you would never believe it, except on her own confession or upon some equally responsible testimony, were you to hear her converse, or to see her beautiful, and some of them highly finished compositions, in both prose and poetry. You would not believe, not because such attainments might not be universal, but because, from lack of the means necessary for their accomplishment, such cases are so rare. Mrs. Schoolcraft is indebted mainly to her father, who is dotingly fond of her, for her handsome and polished acquirements. She accompanied him some years ago, and before her marriage to Europe; and has been the companion of his solitude in all that related to mind, for he seems to have educated her for the sake of enjoying its exercise. The old gentleman, when in Edinburgh, had several propositions made to him to remain. The Duchess of Devonshire, I think it was, would have adopted Mrs. Schoolcraft; and several propositions besides these were made to settle upon her wealth and its distinctions, and his own friends and connections joined to keep him among them by offers of great magnitude. But he told them he had married the daughter of a king in America and although he appreciated, and was very grateful for their offers to himself and his Jane, he must decline them and return to his wife, who through such a variety of fortune had been faithful and devoted to him. Mrs. Schoolcraft is, I should judge, about twenty-two years of age. She would be an ornament to any society; and with better health, for at present she enjoys this great blessing but partly, would take first rank among the best improved whether in acquirements, in taste or in graces.

"Charlotte comes next in order, being younger than Mrs. Schoolcraft by some two or three years. Here again, without the advantages of education to the same extent, or equal opportunities for improvement, but with no deficiencies in these matters you have a beautiful specimen of female mixed blood. This interesting young lady has but little of her mother's complexion. She possesses charms which are only now and then seen in our more populous and polished circles. These are in the form and expression of a beautiful face where the best and most amiable and cheerful of tempers—the loveliest and most captivating ornament of her sex—sits always with the sweetness of spring, and from whence the graces seem never to have departed even for a moment—and all this has imparted to it an additional interest in her own total unconsciousness of their presence and of her powers to please. Her eyes are black but soft in their expression and between her lips, which I have never seen otherwise than half parted with a smile, is a beautiful set of ivory. Her style of dress is neat and in all respects such as we see in our cities. She would be said to be rather tall. Yet her person is good. She sings most sweetly but seems unconscious of it. My opinion of Charlotte is that she would be a belle in Washington, were she there, as I find she is here. No one speaks of her but in terms of admiration of her amiable disposition and in praise of her beauty; and according to my observation and taste she merits richly all the praise that is bestowed.

"Eliza, who is older than either Mrs. Schoolcraft or Charlotte, has never yet consented to speak English. I have not, therefore, been able to judge of her improvement. She appears to be a fine young lady and of excellent disposition. Her complexion is more like her mother's than the rest. The youngest, Anna Maria, is now about twelve years old and is growing up, I think, in most respects like Charlotte. She certainly bids fair to be handsome. When I look upon this group of interesting children, and reflect that their mother is a native of our wilds, I wish for the sake of the Indians that every representative of the people, and all who might have influence to bring about a complete system for the preservation and improvement of at least the rising generation, could see them too."

of mind, and her skill in all the domestic avocations of Indian women, maintained comfort and plenty within her dwelling in spite of the loss of her husband. Her descent from the blood of ancient chiefs rendered her an object of great veneration among the Indians, who in all their miseries, maladies and difficulties appealed to her for aid and counsel. She died at Sault Ste. Marie in 1843.*

It was on Oct. 9, 1828, that the Rev. Abel Bingham arrived at Sault Ste. Marie to establish a mission. After holding services in the morning for the white population it was his custom to hold a service on Sunday afternoon for the Indians. Miss Charlotte Johnston was his first interpreter. For a time he occupied the same building where Lewis Cass made the government treaty with the Indians and where his daughter Angelina was born. He built, however, a mission house on government property and moved into it on Nov. 16.

His first acquaintance among the Indians was with Shegud, one of the minor chiefs, who afterwards became a deacon of his church. He extended his mission work among the Indians as far west as Marquette, in summer traveling in his canoe and in winter on snow shoes with his dog train. The hardships endured during these journeys were great. Many times in midwinter he was obliged to take off his moccasins and wade barefoot through streams not entirely frozen over, he and his interpreter carrying the dog train.

In 1837 it is recorded that there were three merchants at the Sault and that one Indian was taxed. Truly this Indian must have felt civilization not to be an unmixed blessing. This was the year following Michigan's admission as a state and one of its first acts inspired by Governor Mason was to authorize a survey for a canal at Sault Ste. Marie. The American Fur Co. at the time maintained quite an extensive store for the

* There were eight children in the Johnston family, all born at the Sault: Louis, born 1794, died at Malden, 1825; George, born 1796, died at the Sault, Jan. 6, 1861; Jane, born 1800; Eliza, born 1802, died at the Sault, 1888; Charlotte, born 1806, died at the Sault, 1878; William, born 1811, died at Mackinac, 1866; Anna Maria, born 1814, died at Pontiac, 1856; John McDougall, born 1816, died at the Sault, Feb. 14, 1895. Of the children several were prominent in making history three quarters of a century ago. Louis served on board the Queen when she was captured by one of the United States gunboats under Commodore Perry on Lake Erie in 1813. George served in the British army and was in the engagement at Mackinac Island, August 4, 1814. William was an Indian interpreter at various times for the United States government. John McDougall was for a number of years Indian interpreter to his brother-in-law, Henry R. Schoolcraft, and afterwards acted in that capacity for the United States government. Jane was married in 1823 to Henry R. Schoolcraft, the historian and writer. Eliza never married. Charlotte became the wife of an Episcopal clergyman named William McMurray, a missionary at the Sault at the time but subsequently archdeacon of Niagara. Anna Maria became the wife of James L. Schoolcraft, who was mysteriously murdered at the Sault in 1846 as narrated elsewhere in this book.

purpose of supplying its agencies scattered throughout the Lake Superior region with dry goods, hardware and groceries. Meanwhile Dr. Houghton had been appointed state geologist and his reports of the discovery of copper in the peninsula, cautious as they were, had inflamed the country and prospectors were beginning to arrive in the Lake Superior region in considerable numbers. The prospectors found a curiously interesting little colony at the Sault, consisting of about two hundred persons of all nations, colors, grades and languages, exclusive of the Indian lodges. The Indian population found its main aim in life to consist of hunting and cutting wood to supply the garrison and traders with fuel. In the spring they made sugar and fished, using birch bark canoes, scoop nets and spears in the latter employment; in the summer they made the hay for the household use in making beds as well as feeding the little stock that was then to be found about the Sault; in October and November they laid in the winter supply of fish which they cured by drying and smoking, and sometimes by frost. During the winter white fish, trout and herring were caught by the use of spears through the ice, for as a rule the Indians were improvident and lived from hand to mouth.

The Indians divided the years, as intimated, into four seasons; in the winter hunting and chopping; in the spring sugar making and fishing; in the summer haying, and in the fall again fishing. Each Indian secured from the traders an outfit for himself and his family at the beginning of each season. It must be admitted that the prices which the traders charged the Indians were exorbitant, as for instance, \$1 a yard for common calico and the same price for coarse, flimsy unbleached cotton: \$2 to \$3 a pound for tea and tobacco, and from \$50 to \$75 for a pair of Mackinac blankets. If the trader ever had any conscience on this score it was quieted by the invariable habit of the Indian in maintaining that he had wiped out whatever indebtedness stood against him when he turned over the result of his season's efforts to the trader, and he would never thereafter acknowledge any indebtedness whatever for his outfit.

The influx of miners made it necessary to establish two hotels at Sault Ste. Marie in 1845. One was the Van Ander House, kept by Mr. Joshua Van Ander, and the other was the St. Mary's Hotel opened by Mr. Moses W. Stevens. Sault Ste. Marie began to assume an air of importance. It was the distributing center for the new copper country and a growing business was being done in portage. Up to 1845 the line of communication to the Sault consisted principally of the steamer Detroit, which made one trip a week from Sault Ste. Marie to Detroit. In the spring of 1846,

however, one or two additional vessels were put on. Passengers were arriving, however, in greater numbers than could well be accommodated in the small hotels, and they accordingly had to go into camp, which was usually done on a pleasantly-situated point near the foot of the rapids, where amusement could be had in watching the Indians and half breeds in their birch bark canoes catching the delicious white fish.

The social amusements of the little settlement were very limited and usually consisted in the winter season of dances given at the homes of the half breeds. These balls were invariably inaugurated through the giving of a small dance at the house of one of the half breeds having one or more daughters. In the course of the evening one of the daughters would quietly dance up to one of the white guests and unknown to him pin a ribbon upon his coat collar, indicating that he had been selected to be the king and giver of the next ball and that she would gladly be his partner and queen for the occasion. The music was furnished by an old French fiddler, who from the frequency with which his fiddle string broke, was known throughout the village by the cognomen of "Excuse a la cord."

The one character at the Sault who was the "bogie man" to the children and a source of worry to nearly everyone, was John Tanner, commonly known as "Old Tanner." He lived in a neat, comfortable, white-painted house under a large spreading elm tree a little below the Indian agency on the banks of the river. He had been stolen by Indians while a child and had been brought up by them. He lived their life and married an Indian woman. Upon her death he was married to a white woman living at the Sault. Tanner was subject to fits of violent temper so intense and raging as to amount almost to insanity, so that his white wife eventually lived in constant fear of her life. This had been noticed by the Saulteurs for some time, so that during a temporary absence of Tanner from home she was aided by Rev. Mr. Bingham and the Schoolcrafts in escaping and returning to her old home in Detroit. Tanner was in a fearful rage about it and went to Detroit and tried to persuade his wife to return, but without success. From that time on Tanner was more or less insane. He nurtured his hatred in characteristic Indian fashion and threatened to kill everyone who had been concerned in spiritting his wife away. He lived alone in his cottage, since none of his children by his first Indian wife could live with him on account of his violent temper. He was a man of striking personal appearance, with a fine face and long flowing white hair parted in the middle and put back at the ears. His countenance, however, became fearful when he was enraged, and mischievous children could invariably be quieted by threatening that "old Tanner" would get them if they did not behave.

On the night of July 4th, 1846, Tanner's house was burned down and Tanner himself was never seen again. On the Monday afternoon following, James Schoolcraft sauntered in slippers and dressing gown from the old Johnston homestead where he lived, for a walk through his own grounds. Directly south of the homestead in the near woods was a clearing where Mr. Schoolcraft raised vegetables and which he called the farm. While in the clearing he was shot through the heart by some one hidden behind a little clump of bushes nearby, the passage of the bullet being distinctly cut through the foliage. Whether he saw his assailant or not will never be known. He was instantly killed. The shot was heard and the news of the murder immediately communicated to Major Kingsbury at the fort, who immediately evinced the utmost agitation. Rev. Mr. Bingham was with Major Kingsbury at that very moment talking over the advisability of imprisoning Tanner for threatening the lives of several white citizens. In the crowd which soon collected about the prostrate form of Schoolcraft was a boy fifteen years old named Peter White—a young roustabout looking for work. The wadding of the gun was found close by on the ground and proved to be a leaf from a hymn book used at the Baptist mission chapel services where Tanner had formerly been employed as interpreter at the Sunday afternoon services, which were conducted in the Indian language. The excitement precipitated by this murder was intense. Men and boys armed with guns started out to hunt Tanner with the intention of shooting him at sight, but it was a noticeable fact and much laughed at later that no one ventured very deeply into the woods where, if anywhere, he was sure to be. There were many wild stories of seeing Tanner; of finding a man's bones, gun and clothing; also of a mysterious white man with long white locks but with Indian nature being seen among the wild Indians in the North, who told wonderful stories and did strange things; but none of these were ever sufficiently authenticated to aid in clearing up the mystery of the tragedy. That season at the Sault was called the Tanner summer and was full of exciting incidents. Everyone was afraid of Tanner in some way or other. The military post for two months sent a regularly-armed guard every night to patrol the Baptist mission grounds and many tragic scenes and narrow escapes from being mistaken for Tanner and shot by the guard occurred. People who went out evenings went armed to shoot "old Tanner," and he was conjured up in their imagination in every dark corner. Every animal that died old Tanner had killed; everything that was lost old Tanner had stolen; everyone who was missed or was behind time old Tanner had slain. The youngsters at Sault Ste. Marie shivered and shuddered throughout the entire summer.

During the Mexican war, Lieut. Tilden, who had been stationed at the Sault at the time of the tragedy was sent to the front with his regiment. He became involved in some trouble there causing him to be court martialed. During the trial it was hinted that he was suspected of the murder of James Schoolcraft, which was likely to affect the verdict of the court, and Lieut. Tilden accordingly wrote to Rev. Mr. Bingham asking him to get signers to a circular among the citizens exonerating him from this suspicion. This was the first that Mr. Bingham had heard of Tilden's name in connection with the murder. He was glad to help Mr. Tilden and asked citizens to sign the circular. To his surprise Judge Samuel Ashman, at the Sault, refused to sign, saying that he was not satisfied that Tilden was not the guilty man after all. To Mr. Bingham's great astonishment others were of a like opinion, and upon investigation he found that James Schoolcraft and Lieut. Tilden had had some sort of dispute not long before the murder and that Lieut. Tilden in speaking of it had been heard to say that "cold lead would settle it." Major Kingsbury knew of this, which accounted for his visible excitement when the news of the murder reached him. No steps were ever taken to connect Lieut. Tilden with the tragedy, however, and the story that he had anything to do with it is both wild and improbable. It was claimed that on the afternoon of the murder two soldiers came in from pretended hunting in the woods with their guns, the barrel of one being empty, and that these soldiers had been hired by Lieut. Tilden to shoot James Schoolcraft. It is not probable, however, that Tilden, having made public his hostility to Schoolcraft, would have hired two men instead of one to do the dreadful business. It is probably true, however, that these two men did come in from the woods at this time with their guns, and it is singular that about a month after the murder while they were standing with a group of soldiers near the front gate of the fort, there suddenly came up one of those lightning strokes and thunder claps out of a clear sky, accompanied by an almost instant downpour of rain, and immediately after the explosion it was seen that the two soldiers had been struck and killed by lightning, while everyone else in the group remained unharmed. Their bodies were only slightly marked and Dr. Byrne, post surgeon, worked over them for a long time, but without avail. They were borne with muffled drums to the military cemetery and buried with military honors.

The records of the War Department show that Lieut. Tilden resigned in 1848 and died ten years later. While Tanner had an avowed intention and a given motive for killing James Schoolcraft, and while it is

known that he disappeared immediately after his house burned down (none of his bones were found in the ruins) yet there were members of the Schoolcraft household who believed that it was Tilden and not Tanner that killed Schoolcraft. Martha Tanner, the half-breed daughter of John Tanner, who lived to a great age at Mackinac Island, deepened the mystery of the deed by maintaining that Tilden had upon his deathbed confessed to the crime.*

The hauling of the schooner Uncle Tom over the rapids on June 10, 1847, with Peter White's unsuccessful attempt to secure passage on the schooner Merchant bound for the copper country, has already been described. It would be well if there could be introduced a more extended pen picture of the social life of this little settlement, but the main purpose of this story is to relate the conditions that surrounded the early development of the iron fields. But there were characters at the scene both lovely and picturesque. The fame of La Branche, one of the snowshoe travelers, still lives. It is related of him that at the instigation of James L. Schoolcraft he made a special trip from the Sault to Mackinaw and return within thirty hours. Upon his return he remained outside of the Sault on Coalpit hill over two hours in order that he might reach Schoolcraft's store in the fort at the expiration of the time allowed. He feared that an earlier return might deprive him of the extra compensation he was to have. La Branche celebrated his success by dancing the greater part of the same night.

In 1849 the cholera made its appearance at Sault Ste. Marie, the first victim being Morris W. Stevens of the St. Mary's hotel, who was attacked on Saturday and buried the following day. The disease became epidemic and spread with fearful rapidity, numerous deaths following, so much so that the boat which was to leave for Detroit at 2 P. M. the following Wednesday was detained for two hours to enable the passengers to bury their dead and leave for their homes in the lower peninsula. Within a half hour after the boat's leaving not a living being could be seen upon the main street of the village; nor was there a guest left at either of the hotels.

In 1852 congress passed the act granting 750,000 acres of land to the state of Michigan to aid in the construction of the canal, and in 1853 Charles T. Harvey broke ground for the improvement. The first shaft was dug right down through the Indian burying ground to the great distress of the surviving Indians, to whom this spot had been reserved forever by

* Hanging on the wall in the library of Peter White's home at Marquette to-day is a portrait of John Tanner showing a striking and virile face. Peter White has never shared in the belief of Tilden's connection with his crime; nor does he regard the confession, if made, of any importance. He says that men have been known to confess to crimes which they did not commit, as for instance by brooding long upon an event to actually imagine that they committed it.

treaty of the government. Shegud, the Chippewa chief, solemnly protested against this desecration and urged the fulfillment of the government's promise.* He had native powers of eloquence but he was persuaded that his protest would be in vain.

* In the old town of Sault Ste. Marie there is a burial ground probably first used over two centuries ago by the early French missionaries, explorers and fur traders. It was directly on the banks of the river but has now been obliterated for nearly a century. A most interesting relic found not long ago in an excavation there is a little crucifix, made in France, exquisitely wrought in iron and silver, much discolored, but otherwise perfect, buried with some faithful French priest of the Roman Catholic church. How quietly the sleepers have lain there on the banks of the river, unmindful of the changes passing by—summer and winter; the swift flowing water and the solid ice; the wild war cries of the savages in combat and the planting of the cross and the intoning of chants of the Christian church; birch canoes flying past with quick strokes of the paddles, accompanied by shouts and weird songs; batteaux of the fur traders from Montreal and Quebec with their voyageurs keeping time to their strokes with quaint Canadian boat songs; the patient gliding of sail vessels with their modest freights; the little high pressure steamboat puffing its way up with great importance at stated periods; the larger steamers in occasional trips with their loads of tourists, until in the march of civilization the birch bark canoe with its paddle, the batteaux with its voyageurs, have given place and yielded possession to giant steamers that even the oceans of the world can scarcely rival.

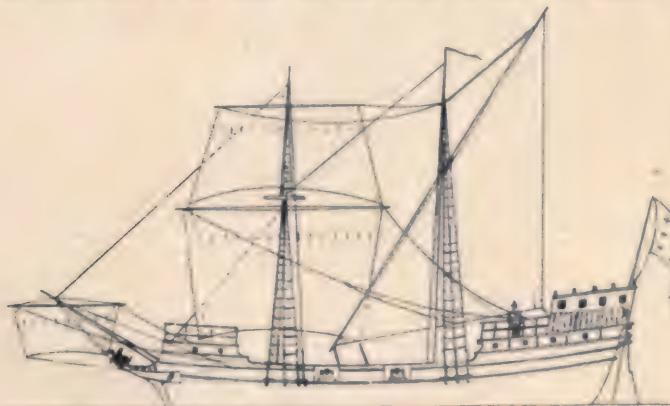
CHAPTER XII.

LAKE SUPERIOR SHIPPING BEFORE THE CANAL.

SO enormous has the shipping of Lake Superior grown since the canal was built that it might be well to state what it was before the canal existed. It seems probable that after the unfortunate Griffin,* which it is conceded was the first vessel to be constructed upon the Great Lakes of North America, sail navigation had an earlier development on Lake Superior than on Lake Erie. It appears, indeed, that a Frenchman named La ronde built a bark of 40 tons above the St. Mary's Falls about 1731, the rigging and other material being sent from lower Canada in canoes. It is stated by Capt. Jonathan Carver, who traversed Lake Superior in 1766, that "The French, while in possession of Canada kept a small schooner on this lake." The loss of this vessel is reported soon after the conquest of

* The Griffin was built by Cavalier de la Salle in May, 1679. La Salle landed at the mouth of the Niagara river on the spot now known as Fort Niagara, in December, 1678. He secured from the Seneca chieftain permission to build a vessel to navigate the inland waters. The site of the construction of the Griffin has been located as nearly as possible on the farm of Jackson

Angvine, close to the Niagara river. The vessel was between 45 and 60 tons burden, both figures being given by various historians. She was fancifully pictured as a schooner, but the schooner rig was not introduced until about thirty years after the Griffin was launched. The correct rig of the Griffin is conveyed in the accompanying line drawing which was discovered by Richard P. Joy, of Detroit, in a little leather covered French



THE CORRECT RIG OF THE GRIFFIN.

book published by Father Hennepin in 1711. It is probable that La Salle obtained the design for the vessel when in France, and that her rig was the prevailing rig for vessels of that period.

Canada by the British. The discovery of copper led to the building of a sloop of 70 tons above the St. Mary's Falls, which was launched in 1772. It was used in prosecuting mining enterprises until their collapse a year or two later, when it probably passed into the hands of the fur traders, who from this time monopolized the commerce of Lake Superior for many years.

The early history of the commerce of Lake Superior cannot be understood without reference to the remarkable commercial organizations which were formed mainly for trade in furs. The first and most important was the Hudson Bay Co., which was chartered by Charles II. in 1670, under the name of "The Governor and Company of Adventures of England Trading Into Hudson Bay." It had exclusive right to trade in and govern all the territory draining into Hudson Bay. For more than a century it exercised these privileges without opposition except as operations brought its agents in contact with the French, then in control of the basin of the Great Lakes. Soon after this territory passed under British control in 1763, the superior advantages of the Lake Superior route to the region northwest of it became manifest.

In 1783, the year when the independence of the United States was acknowledged by treaty, the Northwest Co. was organized at Montreal and at once became a vigorous competitor of the other company, extending its operations across the continent. Its success stimulated the formation of other companies, among them the American Fur Co. by John Jacob Astor. The interests on the British side of the border were practically unified in 1821 by the amalgamation of the Hudson Bay and Northwest companies under the name of the former.

The Northwest Co. employed sailing vessels soon after it was organized, and before the end of the eighteenth century had at least one on Lake Erie and one on Lake Huron. At the beginning of the war of 1812

On her main mast the triangular lattee sail was used then universally, and on her fore mast the two square sails, also common on vessels of the time. As the triangular jib or staysail did not come into use until the early part of the eighteenth century, it is probable that the Griffin carried a spiritsail on her high bowsprit. Even as late as the year 1750 the spiritsail was common to all sea-going vessels.

The Griffin is the first mystery of the Great Lakes. She sailed out of the Niagara river on August 7, 1679, under command of La Salle. The vessel was navigated by an old salt water seaman who acted as pilot, and in four days the Detroit river was entered, and along its banks the members of the ship's company killed bear, deer and other game. The Griffin reached Mackinac in good season. After a short stay at Mackinac she set sail for Green Bay and took on a cargo of fur at one of the islands there. On Sept. 18, 1679, she began her return voyage to the Niagara river in charge of the pilot. La Salle and his company remained behind and explored the Illinois river. This was the last seen of the Griffin and her ship's company. She was never heard from again and her fate remains even to this day enveloped in mystery.

the company reported to the Canadian government that it would place at the disposal of the government on Lake Superior a vessel of 120 tons, which could carry six or eight guns, and another of 60 tons. These and three others were captured by the Americans; a fourth, cleverly hid in an obscure harbor on Isle Royal, escaped detection, and at the end of the war was run down the St. Mary's rapids for service on Lake Erie.

The year after the war closed congress passed an act prohibiting British fur traders from prosecuting their enterprises within the territory of the United States. This gave the American Fur Co. its opportunity, and before many years had elapsed it had sailing vessels both above and below St. Mary's rapids. It is not certain that the British companies again placed sailing vessels on Lake Superior.

The British, however, were not entirely driven from the lake. They had a steamer in service in 1822 and 1823 in which Lieut. Bayfield of the Royal Navy made a survey of the lake. This schooner was probably the Mink, furnished him by the Hudson Bay Co. Considering the time consumed and the means at hand, Bayfield's work was wonderfully well done. The shore line and depths of water, islands and sunken rocks were represented with surprising accuracy and detail, and Bayfield's charts remained standard for fifty years.

Previous to 1829 the fur companies had in their employ on Lake Superior the following vessels: Invincible, Otter, Mink, Recovery and Discovery. They were schooners varying in size from 20 to 100 tons burden and were all built on Lake Superior. The Invincible was wrecked on White Fish Point about the year 1822. The Discovery went to pieces in running the rapids at the Sault. The Mink went ashore on the Canadian side above the rapids and was entombed there. The Recovery safely run the rapids in 1829 and was purchased by Merwin & Giddings, of Cleveland, and ended her days on Lake Erie. The fate of the Otter is unknown.

During the six years that followed 1829 the only vessels that navigated Lake Superior were batteaux and birch bark canoes.

In 1835 George W. Jones built above the Sault a schooner of 113 tons and named her John Jacob Astor. She made her first voyage in August of that year under the command of Charles C. Stanard, who upon that selfsame trip (at 4 p. m., August 26) discovered the celebrated rock which bears his name. He continued to sail the Astor until the end of the season of 1842. The next year his brother, Capt. Ben A. Stanard, succeeded him in command and he was on her when she was wrecked at Copper Harbor, Sept. 20, 1844.

The schooner William Brewster, named after the agent of the American Fur Co. at Detroit, was built for that company above the rapids in 1838. She was sailed first by Capt. John Wood, and he had command until the fall of 1841, when she was laid up at La Pointe. In 1842 Capt. Ben Stanard fitted her out and sent her to Detroit, thus ending her Lake Superior career.

The schooner Algonquin, 50 tons burden, built at Cleveland by Richardson & Mendenhall, was hauled over the portage at Sault Ste. Marie in 1839 and made her first trip on Lake Superior in 1840. She was the first vessel to be hauled over the rapids into Lake Superior, and was successively commanded by Captains Rockwood, Goldsmith, Smithwich and McKay. It was this vessel under command of Capt. McKay which made the rescue of Angelique on Isle Royale in the spring of 1846, as is elsewhere related in this history. It was the Algonquin which carried John Hays to the scene of his wonderful discoveries of copper, and for a considerable period of time she was the only thing bigger than the batteaux on Lake Superior and after the loss of the John Jacob Astor practically handled alone the serious commerce of this mighty lake for a year. The Algonquin indeed had a long and honorable career and her hull is resting even to this day in the bullrushes near Duluth, where she sunk in 1856. There was some talk during the World's Fair of 1893 of resurrecting the Algonquin and sending her to the exposition as an exhibit of what was once the most splendid craft on Lake Superior, but the project was abandoned. It would indeed have been a striking object lesson.

The schooner Madeline, belonging to the American Fur Co., 20 tons burden, was built at La Pointe in 1839. She was sailed by Capt. John Angus and was wrecked at Isle Royale the same year.

The schooner Siscowit was later built by the American Fur Co. and sailed by Captain Angus. Subsequently she was owned by Capt. Bendry of L'Anse, later of Baraga. The manner of her death has been told in the chapter devoted to the early discovery of iron in the Marquette district.

This practically embraced the list of vessels on Lake Superior until 1845, when the growing commerce made it necessary to increase the tonnage. It was found more convenient to haul the vessels over the portage than to actually build them on Lake Superior.

In 1845 the following vessels were taken over the portage into Lake Superior: Schooner Ocean, 15 tons; schooner Fur Trader; schooner Chippewa, 20 tons, Capt. Thomas Clark, master and owner; schooner Florence, 20 tons, owned by Antrim & Keith, taken over on the Canadian side and

sailed by Capt. David Keith. Then followed the schooner Swallow of 86 tons' burden, which was sailed by Capt. Smithwich and which finally became the property of Capt. James Bendry, of L'Anse, later of Baraga. Bendry later concluded that she was too large for the traffic of Lake Superior and sent her to the lower lakes.

The schooner Merchant was hauled over in 1845 and was sailed in 1846 by Capt. Brown. She was wrecked and sunk with all on board off Grand Island in 1847. It has already been stated that the subject of this sketch vainly endeavored to take passage on the Merchant for Copper Harbor on this trip but was refused because she was already overloaded with passengers.

The first steamer ever to sail the waters of Lake Superior was the propeller Independence, of about 280 tons burden, which was put over the portage in 1845.* Capt. A. J. Averill was her master and part owner.

* The first trip of the Independence on Lake Superior, as well as the conditions obtaining at that time are well told by Mr. Lewis Marvill, of Parksville, St. Joseph county, Michigan, who was a member of the crew of the Independence. He states:

"My memory carries me back to the spring of 1845, or more than one-half of a century, and I have a vivid recollection of standing on Dorr & Webb's dock, in Detroit, early in the spring watching the process of transforming a little tub of a sloop of about 15 tons, into a fore-and-aft, called the Ocean. My funds being rather low I decided to ship if I could, and ship I did. We took in a cargo of fish for Sandusky and Milan, O., and in due time sailed for these ports, and returned without any mishaps. We then received orders to fit up for Lake Superior, which we accordingly did, but being slightly indisposed when we got ready, I could not proceed with the vessel, which sailed without me. Some time in June, the same firm that owned the Ocean bought and fitted up the topsail schooner Merchant of about 75 tons, Capt. John Watson, for the same trade, i. e., Lake Superior, and I being determined to visit that famous lake, shipped on her, with the understanding that I might join my own ship (the Ocean) at the Sault if I felt so disposed. In due time we took on board all the necessary materials for taking both vessels, the Ocean and the Merchant, over the rapids and reached the Sault, where we found the Ocean waiting for us. We fell to and worked her over in short meter, and then tackled the larger one, the Merchant. They were taken over on rollers, the same as buildings are sometimes moved. When we had her about half way across, word came that a steamer had just arrived from Chicago, with all the rigging on board, to be taken over the rapids. A few days after a misunderstanding arose among the crew of the Merchant, and a part of them quit and left her. Hearing that they were in want of a porter on board the newly arrived steamer Independence, then lying at McKnight's dock getting ready to be hauled over, I applied and got berth of porter and immediately began my duties as such.

"Everything being in readiness the ship was hauled out of the water and began its transit across the neck of land forming the rapids. No mishaps occurring the progress of hauling progressed slowly but surely, and in about seven weeks we were again launched in the river at the head of the falls. In the meantime the schooner Napoleon of about 150 tons was being put together (her whole works having been got out and shipped there already) and she was launched a short time before the Independence, and so was the Merchant, she having stuck in the process of launching, which caused considerable delay. By this time it had got to be quite late in the fall and it began to be feared that we would not be able to make the trip before we were frozen in. But we finally got away with a crew of fourteen men and steamed up the lake. The first place we touched at was Copper Harbor, or Fort Wilkins (no such place as Marquette then being thought of), where we found a small garrison and two or three log huts. The next in order was Eagle Harbor, where there were a few prospectors, and then on to Eagle river, where we discharged most of our cargo, but before we could throw off some fifty kegs of powder the wind raised from the northwest and kicked up such a sea that we had to weigh

She made a trip to Eagle river and La Pointe that fall and then returned to the Sault where she laid up for the winter. The Independence was built in 1843 by Mr. Averill, father of A. J. Averill, on the north side of the Chicago river, where Kirk's soap factory now stands. She was schooner-rigged, foresail, mainsail and jibs, with two rotary engines to propel her, which in a dead calm would drive her about four miles an hour. Her career was full of vicissitudes and was brought to an abrupt end in 1853 by the bursting of her boiler about a mile above the rapids. Capt. John McKay was master of her at the time and Jonas W. Watson was clerk.

The schooner Napoleon was built at the Sault in the summer of 1845. She was sailed by Captain John Stewart. In the winter of 1848-1849 she was overhauled and changed into a propeller. This vessel had a most unenviable reputation for heavy rolling. Her curve of stability seems to have been most extraordinary. One passenger in describing his experience on her declared that she picked up fish with her smokestack. After the canal was completed she ended her days doing lightering work on the St. Clair river helping vessels over the shoals.

The schooner Uncle Tom was put over the portage in 1847.

The first sidewheel steamer to sail Lake Superior was the Julia Palmer, belonging to Capt. W. F. P. Taylor, which was hauled over the portage in 1846. Her career lasted only one season. On the last trip

anchor and leave. We shaped our course for La Pointe but made very poor headway, the wind being almost ahead. We, however, persevered till we got within sight of the Apostle Islands, when the wind freshened into a gale and we had to turn about and run before it and make for the lee of Keweenaw point, the nearest harbor that we dare enter with safety. In the meantime the sea got running so high that it tossed our little steamer like a shell and rolled so heavy that the stoves broke loose from their moorings and tumbled all over the floor. When it is remembered that it was not generally known among passengers and crew that we had fifty kegs of powder aboard it made rather lively work for us straightening things up. We succeeded in reaching our objective point of safety, where we cast anchor and laid by for three or four days waiting for weather, repairing and laying up a stock of wood which we had to chop and take off in our yawl, rather slow but sure work. We again set sail, and this time having favorable weather we succeeded in reaching Eagle river, where we bid good-bye to our dangerous cargo (powder), and where some of us strolled up the Cliff mine and there saw the first stamp mill (rather a primitive one) in operation in that now famous region. Returning on board we again steamed up the lake to La Pointe, our final destination (no such place as Ontonagon then being thought of), which we reached in safety, and gave the natives a dreadful scare wit' the appearance of our craft and the noise of our steam whistle.

"Our trip up the lake now being accomplished, we started on our return to the Sault, which we reached in safety. The season being now far advanced, we immediately proceeded to dismantle the steamer and laid her up for the winter, in company with the following named crafts; which then constituted the available fleet of the greatest of the Great Lakes: The Ocean, about 15 tons; Chippewa, about 20 tons; Algonquin, about 30 tons; Swallow, about 40 tons; Merchant, about 75 tons; Napoleon, about 150 tons, and the Independence, about 365 tons, the first steamer that ever ploughed Lake Superior. Thus ended the memorable first day trip by steam to the mining regions. We found below the falls the steamer Baltimore, which was hauled over either in the winter or early spring. The Napoleon was fitted up the next summer with engines."

she ever made she was out of sight of land for fourteen days and a most perilous time was had by those on board. Upon her return to Sault Ste. Marie her machinery was taken out of her and she was towed to Wiaskia Bay and used as a wood dock.

The schooner George W. Ford was hauled over in 1850.

When the propeller Manhattan was taken over the portage in 1850, Lake Superior was blessed with a staunch and excellent vessel. She belonged to Spaulding & Bacon and was fast and safe. In June, 1851 the propeller Monticello was taken over the portage by Sheldon McKnight, to compete with the Manhattan. A war of rates was pursued and the feeling between the two lines was very bitter; but the Monticello had scarcely been on the lake three months when a collision occurred between her and the Manhattan. This has never been satisfactorily explained, though it was the general opinion at the time that it could have been avoided. The Manhattan was cut down and sunk near Manhattan Island. The Monticello stood by and cared for all of her passengers so that no lives were lost by this desperate proceeding. Mrs. A. R. Harlow, of Marquette, who has the honor of being the first white woman resident of Marquette, was a passenger on the Manhattan at the time. The Manhattan was resurrected and again placed in commission in six weeks. Upon her reappearance at Marquette a deputation of young ladies all dressed in white and carrying bouquets, marched down to the Cleveland dock and presented Capt. Caldwell, the blunt, scarred and weather-beaten master of the vessel, with the American flag, while a high-flown old gentleman, Dr. Livermore, mounted a cast iron cylinder which stood on the dock and read a series of resolutions eulogizing the Manhattan and ending with the prophecy that Marquette was destined to be the greatest place in the world. Two of the resolutions read as follows:

"Resolved. That in our opinion Marquette has become a place of business and resort sufficient to warrant its being made a stopping place by all boats on their upward as well as downward trips and that the time is not far distant when the the commercial business growing out of these rich and inexhaustible mountains of iron will alone require more shipping than at this time floats upon this lake.

"Resolved. That in our estimation those iron companies who have been the pioneers of operations here, and who have had incredible and unforeseen difficulties, disappointments and misfortunes to grapple with are deserving of a favoring and fostering consideration, and it is a source of much gratification that the smoke of their fires and the clink of their

hammers give indications that days and years of prosperity are in store for them."

The two iron companies which he referred to were the Marquette Iron Co. and the original Jackson Iron Co., both of which failed later.

A few weeks later the Monticello after coming out of Ontonagan was discovered to be taking water rapidly. Both sea and wind were very high and she made her way slowly. Finally her fires were put out by the water rising to the furnaces and she went on the rocky shore about twenty miles above Eagle river and pounded to pieces. She had undoubtedly been cracked from stem to stern in the collision, but during her brief life she was undoubtedly the star vessel on Lake Superior. The Manhattan was wrecked in trying to enter Grand Marais harbor in 1858.

The hauling of vessels over the rapids continued, the fine sidewheel steamer Baltimore being hauled over by the McKnight line in 1852. She was commanded first by Capt. Jack Wilson, then by Capt. Redmund Ryder, Capt. John Shooks, and finally by Capt. John Reed.

The propeller Peninsula was put over the portage by the McKnight line in 1853. She was commanded by Capt. John Reed, and was wrecked the same year at Eagle river. She did not carry passengers to any extent but was a large freight carrier.

Capt. Eber Ward also hauled the sidewheel steamer Sam Ward over the portage in 1853. The Sam Ward was the last vessel to be launched in this manner on Lake Superior, as actual work on the canal had now been begun.

CHAPTER XIII.

CONSTRUCTION OF THE SAULT STE. MARIE CANAL.

MICHIGAN was admitted into the union as a state in 1836, and the governor in his first message to the legislature, convened in 1837, advocated the building of a canal by the state of Michigan. This is the first action on record regarding the construction of the canal on the American side of the rapids. On March 21, 1837, the legislature of Michigan passed an act authorizing a survey for the canal and appropriating \$25,000 for the work. This original survey made under the direction of John Almy, recommended a canal 75 feet wide and 10 feet deep, with two locks each 100 feet long, 32 feet wide and 10 feet deep, the total cost to be \$112,544. On Sept. 7, 1838, the state of Michigan entered into contract for the construction of the canal with Messrs. Smith & Driggs of Buffalo. Work was not begun until May, 1839. The route of the canal traversed the U. S. military reservation, and as the federal authorities had not approved of

the undertaking, the officer in command, acting under orders from Washington marched a detachment of soldiers to the scene of operations and forcibly ejected the contractors. Thus ended the first attempt at canal making.

Michigan, however, did not drop the matter. On March 27, 1840, the Michigan legislature passed a joint resolution protesting against federal interference with the work. Three days later a memorial on the subject

CHARLES T. HARVEY.



was presented to congress. A bill was also introduced in congress to grant 100,000 acres of land to aid in the construction of the canal.

It is interesting to observe that the passage of the measure was advocated mainly on the ground that it would "stimulate the fisheries of Lake Superior, estimated to be worth \$1,000,000 per annum. It was incidentally added: "In the country bordering the southern shore of Lake Superior copper and other minerals are believed to exist in abundance." The bill, however, was not passed. In 1843 a further attempt was made, but the great Henry Clay opposed it on the ground, to use his own words, "that it contemplated a work beyond the remotest settlement in the United States, if not in the moon."

In 1843 the Michigan legislature invoked the aid of the legislatures of New York, Pennsylvania, Ohio, Illinois and Wisconsin in jointly pro-



ORIGINAL UPPER LOCK OF 1855.

moting favorable action by congress for the canal, but without avail. Similar appeals followed in 1844, 1848 and 1849, but they proved futile. Meanwhile Dr. Houghton's report on the discovery of copper deposits in the peninsula had inflamed the country, and prospectors were beginning to flood the Lake Superior region by the thousands. Sault Ste. Marie began to assume an air of importance. As is often the case in later days, when a project for river and harbor improvements of questionable merit is proposed in congress, a survey of the proposed St. Mary's Falls canal was ordered while an appropriation for the project itself was refused.

From this resulted a better understanding of the commercial requirements and the probable cost, which, together with the clamor of the mining interests, which had now grown insistent, caused congress to pass, on Aug. 21, 1852, an act granting 750,000 acres of land to the state of Michigan to aid in building the canal. Congress required that the canal should be at least 100 feet wide and 12 feet deep, with locks at least 250 feet long and 60 feet wide. Congress allowed three years for beginning the work and ten years for its completion.

Governor McClellan of Michigan immediately secured the services of Capt. Canfield of the U. S. Topographical Survey to make a survey for the canal, and under authority of the legislature, appointed Chauncey Joslin, Henry Ledyard, John P. Barry, Shubael Conant and Alfred Williams as the commissioners.

There was at this time at the Baptist mission at the Sault, a young man named Charles T. Harvey, recuperating from the wasting effects of a severe attack of typhoid fever, which had confined him to his Connecticut home for months. He was in the employ of Messrs. E. & T. Fairbanks & Co., scale manufacturers of St. Johnsbury, Vt., as general western agent, in charge of establishing agencies for their weighing machines in the large western cities. He had been sent to the Sault by his employers, primarily for his health, but incidentally to inquire into the mining resources of that region as his returning strength permitted.

He spent a couple of months in leisurely examining the development in the iron and copper districts, meanwhile regaining health and strength most satisfactorily. When news reached the Sault of the passage of the grant of land by congress, he immediately examined the locality where the canal must be built with special attention. Though he was scarcely twenty-one years old, he saw the enormous possibilities of the undertaking and immediately wrote to his employers, asking permission to devote his whole attention to the enterprise. He expressed his views upon the subject lucidly, pointing to the immense mineral wealth lying latent, the probability that lands of great value could be selected, and to the general lack of public knowledge concerning the country and the magnitude of the enterprise. He urged especially that he be permitted to promote the enterprise, in so far, at least, as to obtain suitable action by the Michigan legislature, which was to meet the following January, and upon which congress had conferred full control. The firm at once replied, approving his idea, granting him a furlough and authorizing him to draw on them for the expenses of the new venture.



PHOTO SHOWING METHOD OF OPERATING ORIGINAL LOCK GATES.

Harvey seized his opportunity immediately. He went to New York state and secured the services of one of the most experienced engineers on the Erie canal, Mr. L. L. Nichols, of Utica, and returning with him to the Sault on the steamer Northerner, in November, organized a surveying party. While Nichols made a survey of the canal site, Harvey made a trip down the St. Mary's river to explore for a suitable quarry to furnish stone for the locks, locating one eventually on Drummonds Island.

When the survey data was completed, Harvey left on the last steamer to sail from the Sault that season and presented himself at Lansing during the first week of January. The state constitution of Michigan at that time limited the session of the legislature to forty days, which naturally did not leave much time for lengthy debate. Harvey found that the private survey which he had caused to be made was the only information concerning the project available, and when the legislative committee, composed mainly of farmers, was ready to proceed upon the measure they requested him to draft a suitable bill for adoption. Harvey had already established confidential relations with the late James F. Joy, then the legal counsel for the Michigan Central Railway, and with the late John W. Brooks, then its managing director, and after a consultation with them, drafted a bill which the committee reported and the legislature passed precisely as it was written.

Congress, as related, had specified that the locks should be 250 feet long and 60 feet wide. Harvey was convinced, however, that the commerce of Lake Superior was destined to require as large steamers as were used on the lower lakes, and specified in his bill the minimum locks to be 350 feet long and 70 feet wide. These dimensions were greater than those of any other artificial waterway on the continent, if not in the world, and the undertaking was, for the times, stupendous.

It is interesting to publish in this connection the following letter from Eber B. Ward, then the largest individual vessel owner on the lakes, protesting against this increase in the size of the locks on the ground that the narrow, shallow and rocky channels in the St. Mary's river would forever deter the largest class of steamers from navigating these waters.

"DETROIT, Jan. 29, 1853.

"Hon. Wm. A. Burt.

"Dear Sir:—The deep anxiety I feel in common with the rest of the community for the early completion of the Sault Ste. Marie canal induces me to write to you on the subject.

"I fear the defeat of our long cherished hopes.

"The legislature in their anxiety to prevent undue speculation by those who would be disposed to contract to do the work are in great danger of going to the opposite extreme, and make such requirements as will deter competent men from taking the contract for the land. The size proposed by the senate bill, 350 by 70 foot locks, is entirely too large for the locks. The crooked, narrow, shallow and rocky channels in the St. Mary's river will forever deter the largest class of steamers from navigating these waters. Aside from the impediments in the two lakes George, there are several places where the channel is very narrow, with but 11 feet of water clear of rocks, and the channels too crooked for the large class of steamers to pass in safety.

"This I regard as a conclusive argument against making the locks so large as is contemplated.

"I do not believe there is the least necessity for making the locks over 260 feet in the clear and 60 feet wide, as no vessels of larger dimensions than could pass such locks can be used there with safety without an expenditure of a very large sum of money in excavating rock at various points along the river, a work that is not likely to be undertaken during the present century.

"The value of wild lands may be estimated by ascertaining the amount actually realized by the state for the large grants that have heretofore been made for purposes of improvement when no taxes were collected until lands were sold to settlers I think it will be difficult to find the value of 25 cents per acre for all such grants made to this state. A well organized company might make the lands worth 75 cents per acre, provided they were not taxed while held by the company. I have no doubt the smallest sized canal required by the act making the grant of land would cost \$525,000 or 70 cents per acre. Add eight cents per acre for interest during the construction of the work and 15 cents per acre for selection and location, brings it to 93 cents per acre, a price at which any quantity can now be located without any risk of loss and with much greater chances of making desirable selections. If the legislature will appoint a committee who shall act with the governor to make the best contract for the state they can, holding them responsible for a faithful discharge of their duties, I feel confident we shall succeed in securing the great object of our wishes. But if the bill should materially restrict the governor in his powers I think we have good reason to fear that the most vital interests of the state will be delayed for years to come.

"Hoping for a favorable issue to this absorbing question, I remain,

"Truly yours,

"E. B. WARD."

The argument in the letter, from a business standpoint, was a good one, nevertheless, because an amount of land equal to that granted by congress could have been bought at the regular rates for less money; but the ship canal company had the valuable privilege of selecting lands not yet thrown upon the market, and this privilege they exercised with the greatest wisdom and great good fortune. When Ward's letter was read a meeting of the special committees of both houses was hastily called, and Harvey summoned before it. He gave his reasons for proposing the larger dimensions and assured the committee that his principals and their associates would make a bid upon the enlarged structure.

When the bill was passed Messrs. Fairbanks invited well-known capitalists in New York and New England to join with them in making the necessary bid, which was formally tendered and accepted by the state commissioners on April 15, 1853. The first name in the list of bidders was that of Mr. Joseph P. Fairbanks, his associates being J. W. Brooks, Erastus Corning, August Belmont, H. Dwight, Jr. and Thomas Dwyer. Their sureties were Franklin Moore, Geo. F. Potter, John Owen, James F. Joy and Henry P. Baldwin.

As soon as the bid was signed, Harvey secured from the governor of Michigan an appointment as special agent for the state to select the lands to be donated within its border by congress in aid of the canal. He engaged a steamer to take him to St. Mary's river, which was then closed by ice, and dispatched a special messenger on snow shoes to the United States land office at the Sault, authorizing a deputy to withdraw lands from sale in certain localities which Harvey designated. He then went to Washington and secured from the United States Land Commissioner confirmation of his power to do so, which was afterwards litigated but sustained by the courts. The knowledge upon which he had acted he had gained in his tour among the mines during the previous summer, and the 140,000 acres, more or less, which he secured in the upper peninsula realized millions and millions of dollars to his principals in later years. It is sufficient to state that among the lands selected by Harvey was the location which was afterwards developed into the Calumet and Hecla mine, this mine having declared to date over \$75,000,000 in dividends.

The constitution of Michigan at that time forbade all special charters, and Harvey accordingly went to Albany, N. Y., and secured a charter



THE LOCKS THAT WERE IN CONTINUED USE FROM 1855 TO 1887.

for the St. Mary's Falls Ship Canal Co. from the New York legislature. To this company Fairbanks and his associates, who had bid as individuals, assigned their contracts at a meeting which was held in the building at the corner of William and Wall streets, New York, then as now occupied by the Bank of the State of New York. The company was organized by the election of officers and directors as follows: President, Erastus Corning, Albany, N. Y.; Vice-President, John W. Brooks, Detroit, Mich.; Erastus Fairbanks, St. Johnsbury, Vt.; John M. Forbes, Boston, Mass.; John F. Seymour, Utica, N. Y., and Benjamin Tibbits, Albany, N. Y., board of directors.

Harvey was made general agent of the company, with unlimited executive powers and a substantial stock interest assigned to him for promoting the enterprise. The sum of \$50,000 was placed to his credit in a bank at Detroit, and he was authorized to draw on the treasurer for further funds as needed.

Harvey was then practically told to go ahead and dig the canal. Here he was, practically alone in the world, not much beyond his twenty-fourth birthday, charged with the execution of an engineering undertaking that, considering the times, was simply stupendous. The locality was almost as uncivilized, the resources of the surrounding country were almost as undeveloped as when white men first set eyes upon it two centuries before. Harvey's thoughts as he made his solitary exit from that room were very solemn ones.

He went north. He stopped at Detroit and made it his temporary headquarters. There he engaged C. W. Chapel as foreman of excavation work, purchased horses, tools and supplies, and securing from the United States Indian Agent the rental of the agency premises for his own residence at the Sault, loaded the steamer Illinois to the guards with horses, tools, lumber, provisions and supplies and about 400 men, and set out for Sault Ste. Marie, where he arrived on June 1.

Harvey is one of those men that lose no time. The moment the Illinois touched dock the horses were hitched up into teams, the lumber hauled to the canal reservation and in forty-eight hours the men were housed in improvised buildings and regular meals provided for them. On June 4, 1853, the third day after landing, the workmen were organized into working gangs of thirty, each under selected foremen, formed in ranks, marched to the site where Harvey, with his own hand, broke ground and wheeled

out the first barrow of earth from the cut amid the plaudits of the workmen.*

Work upon the canal was prosecuted with the utmost vigor and under conditions which would daunt anyone but the most determined. As stated, Sault Ste. Marie at that time was a comparative wilderness. The nearest machine shop was several hundred miles away; the nearest telegraph station was at Detroit, 450 miles away. Everyone of the many thousand kegs of powder had to be transported from the States of Connecticut and Delaware. It took six weeks for a letter to reach New York and return a reply. There was not sufficient labor at the Sault to build the canal and agents had to be sent East to board incoming ships, hire immigrants and take them in gangs to Sault Ste. Marie, paying their fare. Some wealthy citizens now living in the upper peninsula might be named who thus found their way into that district. There was at that time a scarcity of labor in the West owing to the railroad construction which was taking place in all parts of the country. It required, in fact, considerable maneuvering to circumvent the railroad agents who were continually endeavoring to persuade the men to leave their work and go with them. All drilling had to be done by hand. There was no way of hastening work except by putting on more men. At one time as many as 2,000 men might have been seen at work within the space of one mile.

The winter days were very short, there being only eight hours of sunlight. The cold was also very severe, the thermometer frequently registering 35 degrees below zero. A man was constantly stationed at the head of each runway for barrows with orders to rub vigorously with snow any man's face which gave indications of being frostbitten, thus preventing the workmen from suffering and obviating the necessity of any man leaving his work. The winters then were far colder than they are now. Indeed the customary method of preserving meat over winter at Sault Ste. Marie was to cut it into roasts and steaks, salt it thoroughly and put it in a barrel in the woodshed. When a steak or roast was needed it was simply chopped from the frozen mass, the meat keeping sweet until spring.

During the progress of the work upon the canal in 1854 an epidemic

* Mr. Harvey's life is one that offers powerful testimony to the virtue of total abstinence. He has lived a most active life and has done a prodigious amount of work. Yet to-day, though he is approaching eighty years of age, his energy is astounding and is far greater than that possessed by most men of forty. He was actively hostile to the saloon interests during the construction of the canal, so much so that upon one occasion when Mr. Hargreave, the Hudson Bay Co.'s agent on the Canadian side, brought out a bottle of wine, upon his first meeting with Harvey, from the company's reserve stock that was nearly a century old and priceless in value, Harvey astounded Hargreave by declining to drink to anyone's health in it. Hargreave was considerably provoked but was appeased when he saw the depth of Harvey's conviction on the subject. Mr. Harvey established a Presbyterian church at Sault Ste. Marie which was one of the first, if not the first, to be established in the north.

of cholera broke out and carried off fully one-tenth of the workmen. Every effort was made by the management to keep the knowledge of the real nature of the disease from the colony. Therefore all burials were quietly



MR. CHARLES T. HARVEY AS HE IS TODAY.

performed at night. The men died like flies, and yet notwithstanding the ravages of the disease the work was not suspended for a single day; and owing to the swiftness and secrecy with which the dead were removed the

frightful decimation was not noticed by those who were not visited by the dread pestilence.

But one strike occurred during the progress of the work and that was concluded within twenty-four hours. When the strikers were marching about the town making a long procession of 1,000 or more, Harvey caused the provisions to be removed from the shanties and when dinnertime came and the men returned with good appetites they were informed by the caretakers that orders had come from the office that no regular meals were to be served on such occasions. Fasting was the only alternative, and before bedtime a company of the strikers called on Harvey to say that if he would provide rations they would return to work the next morning. The proposition was accepted and work resumed.

In 22½ months the great work was finished. On April 19, 1855 Harvey opened the sluice gate to the outer cofferdam on the Lake Superior level and let its waters flow into the finished canal prism, doubtless never to be entirely excluded so long as the world endures. The canal was 5,700 ft. long, 64 ft. wide at the bottom and 100 ft. at the water surface, and 13 ft. deep. The locks, two in number, were each 70 ft. wide and 11½ ft. deep on the miter sills, with a lift of about 9 ft. each.

The actual cost was \$999,802.46. On June 18 following the steamer Illinois passed up and the steamer Baltimore passed down, and these were the first two vessels to use the canal which opened to mankind the greatest mineral domain in the world and which has conferred a vast blessing upon the country; and without which the United States would indeed today be occupying, not the first as it is, but the least of places among the industrial powers. Following the Illinois through the canal was the North Star, which, as has been related, was the first to bring the message of deliverance to the struggling iron companies at Marquette.



The Honorable Peter White

PART III

First Shipments of Ore

Discovery of Other Ranges

Development of the Ore Carrier

Industries at Sault Ste. Marie

CHAPTER XIV.

FIRST SHIPMENT OF ORE THROUGH THE CANAL.

IT is a matter of historical importance that the Cleveland Iron Mining Co. was the first to utilize the Sault Ste. Marie canal for the shipment of ore. The brig, Columbia, Judson Wells, master, left Marquette on August 14 with 132 tons of ore consigned to the Cleveland Iron Mining Co. and passed through the canal on August 17, constituting the first shipment of ore through the canal. The Columbia was 91 ft. long, 24 ft. beam and was built at Sandusky in 1842. As she had no foreboom her deck was pretty free forward. This ore was delivered at Crawford & Price's dock, old river bed, Cleveland. The second cargo was carried on the schooner George Worthington and consisted of a load of 262 tons in the hold consigned to the Cleveland Iron Mining Co. and a deck load of 60 tons consigned to the Forest City Iron Co. During the year the Cleveland company shipped in all 1,449 tons of ore which constituted the entire shipments of the peninsula for the season, the other two companies, Jackson and Lake Superior, not being prepared to ship any at all. The little dock at Marquette was a flat structure without trestle work and the vessels loaded by means of wheelbarrows. The crews of the vessels loaded the ore, being paid for doing so at the rate of 25 cents an hour. Nearly all the early shipments were carried in schooners. Steamers could not be got to take the ore and several propellers and sidewheelers found it convenient to decline to stop at Marquette on their way down the lake even after having promised to do so. The fact was that all steamboats in those days were practically passenger boats. Such a thing as a freight steamer for purely freight purposes was not thought of. The steamers had good reason to avoid taking cargoes of ore. They had no accommodations for it and it got the steamboat in a disgraceful condition for passenger service. Moreover, the only way a steamer could be loaded was by listing her against the dock and trimming the cargo later.

George B. Russel, of Detroit, who had established a shipyard in Hamtramck in 1854, built in 1856, the propeller, B. L. Webb, the first lake boat

constructed with a beam of over 30 ft. and designed her with special reference for carrying ore, but unfortunately the Webb was burned on her first trip on Lake Superior in October, 1856, while en route from Sault Ste. Marie to Marquette, so that she never carried any ore at all.*

It might be well for the sake of history to follow these few early cargoes to Lake Erie docks. It has been shown that it was put aboard the little schooners by manual labor of the severest sort and at a cost per ton that would today be absolutely fabulous. It took about four days to load a cargo of 300 tons. The unloading of the cargo was an even more arduous undertaking. Whenever possible only deck loads were carried by the schooners owing to the difficulty of getting the ore out of the hold. To get the first few cargoes out of the hold of the vessel staging had to be built in the hold about half way up from the bottom. The ore was shoveled upon this staging; then from the staging to the deck and then from the deck to the dock, making three handlings in all. By this process it took nearly a week to unload 300 tons. It was mighty tedious and expensive work. The next method was to unload it by means of block, tackle and a horse. A block carrying a manila rope was fastened to the ship's rigging and a tub attached to the rope was lowered into the hold. Another block through which the rope ran was fastened on the dock and the horse hitched to the end of this rope. The tub was filled by hand shoveling and then hoisted by the horse walking forward. To get the tub back into the hold it was necessary for the horse to back up. Planks laid upon wooden horses, both on the dock and on the deck of the vessel, furnished a roadway upon which the men could wheel the barrows of ore off the vessel, two men standing above this temporary staging on deck to empty the ore from the tub into the barrow.

* In November, 1856, the new propeller B. L. Webb, of Detroit, constructed by George R. Russel, with special reference to the ore trade, was loaded with provisions and mining supplies for Marquette. On her passage up while in shelter in Wiaskey Bay she took fire, burned to the water's edge and sank, causing the destruction of her entire cargo. The consternation which this loss occasioned in Marquette may well be imagined. It was the last trip of the season and the cargo of the Webb consisted of feed for the horses and provisions for the men. The feed for the horses is mentioned first because it was the most important item, as there was scarcely a ton of hay left in the village nor was there any means of obtaining any until spring. It was at this time that Mr. J. Tallman Whiting, who was associated with Sheldon McKnight at the Sault and in the vessel business came to the rescue. He decided upon his own responsibility to duplicate the cargo and to send the propeller Gen. Taylor from Detroit as a relief vessel to Marquette and other ports. It was an expensive and hazardous undertaking as no insurance could be obtained on the vessel or cargo and moreover the crew would have to remain with the vessel over winter at Marquette. The trip was successfully made and though high rates of freight were charged the inhabitants of Marquette were very glad to pay them. Freight was carried by the barrel bulk in those days and not by weight. Upon this particular trip they were \$3 per barrel to Sault Ste. Marie, \$4 to Marquette, \$5 to Eagle Harbor, and \$6 to Ontonagon. There was a consignment of stovepipe aboard which was charged at the modest rate of 50 cents per joint. The Gen. Taylor reached Ontonagon in safety and was laid up there for the winter.



PROPELLER MINERAL ROCK. A TYPE OF 1845.

Among the property purchased from the old Marquette Iron Co. by the Cleveland company was sixty-four acres of land in Marquette, and in 1855 the company turned the management of this estate over to Peter White. This got the young man into the real estate business head over heels, in which he has continued ever since with marked success, for Marquette is practically built upon land which Peter White has sold.

The old strap railroad went into operation on Nov. 1, 1855, and lived a strenuous life for two years. The motive power was mules and the cars held about four tons each, which, said Dr. Hewitt in a letter home, "is enough for any car to carry." The cars were flat bottom affairs and when they were first loaded it was found that the load bore so heavily upon the trucks that the wheels scraped against the bottom of the car which was remedied by cutting away a portion of the platform just above the wheels. A team could not make more than one trip a day, sometimes not that, and for the entire motive power to move 35 tons from the mines to the lake was accounted a big day's work. The grades were simply frightful and the cars frequently ran away, mangling the mules and jumping the track at the first curve. At the first sign of trouble the driver could slide off the car into the soft sand at either side of the track, but the poor mules had no protection. It was pretty expensive business. Mules were costing \$1,400 per pair in the peninsula and hay occasionally went to \$50 per ton. The track, too, was constantly getting out of shape.

Both companies realized that the strap railroad would never do, and when congress passed the land-grant act to stimulate the construction of railways in 1856 overtures were made for consolidation with Ely's steam railroad. At this juncture Heman B. Ely suddenly died in Marquette, but the work which he had undertaken was assumed by his brother, Samuel P. Ely. The legislature of 1857 was to distribute the lands granted by congress and it was of vital importance that a person familiar with the situation in every detail should represent Marquette in the assembly. The result was that Peter White ran for the legislature. There was someone else running also somewhere in the peninsula and as far as known he may be running yet for he was not heard from at the polls.

Peter's appearance at Lansing created a sensation. It took him fifteen days to get there. He made the journey on snow shoes from Marquette to Escanaba, took the stage to Fond du Lac and walked the rest of the way to Lansing. Everyone was on the qui vive at Lansing for the representative from Marquette, for they realized the almost insurmountable obstacles which stood in his way. Peter was heartily cheered as he took his seat

among them. Something of his reputation had preceded him and he always had an audience in the committee room eager to listen to the story of his experiences in the trackless north. Legislation then was beset with the pitfalls and handicaps that mark it now. There was much wrangling over the distribution of the grant—far more, indeed, than the exigencies of the case demanded—and Peter quickly observed that with the lobbyists out of the way the representatives could readily dispatch in an honorable manner the business for which they had gathered. He made a speech in which he pointed out the unwarranted interference of those who were serving no great constructive interest and who did not have the development of the state at heart and declared that they were “thick as autumnal leaves which strew the brooks in Vallombrosa,” a simile so apt and so sonorous as to establish a reputation for erudition instantly. They did not know that Peter the evening previous had begged a learned friend to furnish him some quotation that would fit the particular point he wished to score. Hence Vallombrosa. Peter did good work in the legislature and the grant was carefully distributed. He walked back to Marquette and it was twenty years before he again served the people in a legislative capacity. He was now known as the Honorable Peter White.

CHAPTER XV.

STEAM RAILROAD FINISHED TO THE MINES.

ELY'S steam railroad was finished to the mines in September, 1857. One of Peter White's recollections is rowing out in a row boat some time during the preceding year to inspect the locomotive Sebastopol brought up from Paterson, N. J., as it stood upon the deck of the brig Columbia in Iron Bay. This was the first locomotive to reach the peninsula. It was built by the New Jersey Machine & Locomotive Works, Paterson, N. J., and was designed for a gauge of 4 ft. 10 in., having cylinders 6 ft. 2 in. and drivers of 5 ft. The locomotive weighed 25 tons and cost \$11,000. This locomotive was soon followed by a second, which was brought up on the schooner E. C. Roberts in 1857 and was named C. Donkersley, in honor of the first superintendent of the railway. The carrying capacity of the railway with this motive power was estimated, when all conditions were favorable, at 1,200 tons per day. The conditions obtaining at the time can probably be more graphically conveyed by reprinting an editorial published in the Lake Superior Journal on August 15, 1857, which was two or three weeks before the railroad went into operation.* It is amusing today to think

PETER WHITE IN 1857.

A black and white portrait of Peter White, a man with a full, dark beard and mustache, wearing a dark suit and white shirt. He is looking slightly to the right of the camera.

per day. The conditions obtaining at the time can probably be more graphically conveyed by reprinting an editorial published in the Lake Superior Journal on August 15, 1857, which was two or three weeks before the railroad went into operation.* It is amusing today to think

* "The experiment with the light cars on the T rail, of which we spoke last week, works to perfection; indeed we are informed that they run better, even, than on the strap rail, and more safely. The result of the first week's trial shows a perceptible increase in the amount of ore brought down, and the probabilities are that it will be still more increased next week. There are now twelve sail vessels and one propeller loading and waiting to load with ore, and there is not a pound on the dock except that which comes down from day to day. At this rate it will take about four weeks to load those that are now here, to say nothing of more which may arrive. This is a point at which we did not expect to arrive this season, and hence our repeated request to send along vessels. But it is useless to deny the fact that our present facilities for bringing down ore are insufficient, and our present circumstances with so many vessels waiting, are anything but desirable. But it is an old but true saying, that 'it is always

that 1,200 tons was ever regarded as an avalanche, but it is a fact that no one identified with the iron industries comprehended the future demand for iron and the enormous consumption destined for it. Indeed the evolution of the world was necessary to beget such comprehension. Industrially the world was pretty young even as late as 1857. The Iron Mountain Railroad issued a big poster on freight rates, a fac-simile of which is produced here-with. It was during this year that Fayette Brown went into the peninsula to assist in developing the iron mines. He was most active and successful. The name of Brown was later to become indissolubly linked with the handling of iron ore on the great lakes.

It was in 1857 that the land office was transferred from Sault Ste. Marie to Marquette and Peter White was made land agent. A little later he added to his duties that of collector of customs of the port of Marquette, the city being made in that year a port of entry in place of Sault Ste. Marie. It might be supposed that these various offices would keep the young man busy, but Peter White perceiving that there were certain minor cases arising constantly to be adjudicated in the little town, undertook the study of law in order that he might be the better prepared for any emergency that might arise. Paint you no picture of a man sitting at the feet of some learned authority and drinking deep of legal lore. There was neither lawyer nor judge in Marquette then. Rather paint a picture of a young man studiously reading the standard works of law by the light of a candle and conning them quite thoroughly until he had the great branch of equity at his finger tips. A college of law will teach equity last, but Peter took it first. The pine knot and the tallow dip have taken their place in American fiction because so many characters, famous in American history, have employed them to lay the enduring foundations of their education. Peter White is one of them for the United States Supreme Court later admitted

darkest just before the dawn,' so now, our companies are having their greatest difficulty in supplying their vessels, just before the time when the ore can be brought down like an avalanche, at the rate of 1,200 tons per diem, with the present motive power at command. Were it not for this we might apprehend trouble in the future, from the present delays of vessels, but they all understand this, and will undoubtedly be ready to go on with the business again next season, notwithstanding the vexatious delays now. The amount of ore taken out of the mines can only be limited by the number of men employed, so that there is no cause of apprehension on that score. If a sufficient amount of ore was now on the docks, the amount shipped would be at least one-fourth more than it will be as it is, yet we trust that next season will more than make the present loss good. The receipts on the dock, for the week ending Aug. 14th, are per Cleveland I. M. Co., 654 gross tons; Sharon Iron Co., 650 gross tons; total, 1,304 gross tons.

"Shipments during the same time: Cleveland I. M. Co., per Schr. Consuello, 254 gross tons; Prop. Mineral Rock, 106½ gross tons; total, 360½ gross tons. Sharon Iron Co., per Prop. Mineral Rock, 102 gross tons; Schr. Exchange, 429½ gross tons; total, 531½ gross tons; total for the week, 882 gross tons. A portion of this week's receipts is now on board of vessels that are not fully freighted."

him to practice before it upon the information which he had wrung from the law books in the days when he was pioneering. He later formed the law firm of White & Maynard, but after ten years practice surrendered the entire business to his partner.

IRON MOUNTAIN RAILROAD! GENERAL REGULATIONS!

All freight received for transportation must be accompanied with a memorandum to be signed by the owner, or consignee, giving description of articles, consignment, weight and the Railroad charges to be collected upon delivery according to the freight tariff. Banks for this purpose will be furnished by the Company. Upon delivery a receipt must be given by the Consignee.

Freight in packages must be distinctly marked with the name of the consignee and place of delivery. Property shipped in bulk must be loaded and unloaded by the owner or consignee. Cars so loaded must be unloaded and delivered upon the Company's track within six working hours after arrival at their place of destination. **TEN DOLLARS** will be charged for every 24 hours detention thereafter.

The Company is not responsible for damages occasioned by unavoidable delays, nor for damages from frost or heat to articles shipped thereby, nor for articles not suitably packed for transportation.

GUNPOWDER, FRICTION MATCHES,

And combustibles generally, will not be received in the Company's buildings, nor transported except under special contract. The Company will not become responsible for the transmission of money or valuable papers, manufactures of gold and silver jewelry and the like. None of its agents are authorized to take charge of or receive compensation for carrying property of this description.

Claims for damages upon property transported must be made and settled before its removal by the owner or consignee. Property for transportation from the way stations where Depot buildings have not been established, is at the owner's risk until received on the cars, and property transported to such stations is at the owner's risk after delivery from the cars.

All standing freight accounts are to be settled weekly.

No trains will be run on Sunday.

FREIGHT TARIFF.

Until further notice this Company will carry freight at the following rates:

GOING EAST.

	70cts per ton of 2000 lbs.
Iron and iron ore, from Pioneer Furnace and Jackson Mountain to Marquette,	70cts
From Cleveland Mountain to Marquette,	70cts
From Lake Superior Mountain to Marquette,	77 1-2cts

The cars to be loaded and unloaded by the owners or consignees of the property, and to be delivered upon this Company's track, as provided in the general regulations. For all other freight double the above rates will be charged.

Going West.

	6 cents per 100 lbs.
For all freight, excepting articles specified below from Marquette to Franklin,	6 cents
From Marquette to Duncans Mills,	6 cents
" " Pioneer Furnace and Jackson Mountain,	6 cents
" " Cleveland Mountain,	9 " "
" " Lake Superior Mountain,	10 " "
	11 " "

For empty barrels, boxes, feathers and the like, double the above rates will be charged. Brick, stone, lime and the like, in quantities of 8 tons and upwards, loaded and unloaded by the owners, will be taken at half the above rates. Smaller quantities at a reduction of 25 per cent from the above rates. Brick are reckoned at 4 lbs. each and stone at 36 lbs. per cubic yard.

THE OLD IRON MOUNTAIN RAILROAD'S FIRST HAND BILL.

On Sept. 29, 1857, the Rev. Henry Safford united in marriage Ellen S. Hewitt and Peter White.

The Cleveland company was the first in the world to adopt the pocket system of loading ore in the construction of the dock. The idea came from the coal fields of Pennsylvania where coal was handled by means of a chute. The Cleveland company built a trestle work upon its dock, and by 1858 had constructed nine or ten pockets with chute attachments. The pockets

held only a few tons and were small in comparison with the immense structures of today, but nevertheless they were the forerunner of the present wonderful system of loading iron ore whereby 8,000 to 10,000 tons may be loaded upon a vessel within a few hours. Peter White had his hand in it. He secured the contract to furnish all the pine to be used in the construction of the dock, but Gordon beat him down on figures so that there was absolutely no profit in it. As he was leaving with his contract Gordon called him back and said:

"We'll pay \$5 extra for all the yellow pine you furnish," mentioning the measurement.

"Very well, sir," said Peter.

He did not tell Gordon that he could furnish nothing but yellow pine, as there was not a stick of white pine in the immediate vicinity of Marquette. So the contract was a good thing for him after all.

At this time there came to live in the Harlow family, as a cook, an Indian woman named Angelique, whose story as related is the most tragic in the annals of Lake Superior history. The good God was kind to this woman when He gave her great resistance to suffering and an exhaustless reservoir of physical endurance. She had need of them. She was forest born and inured to privation from her birth. She was free limbed, full grown and was possessed of enormous strength. She seemed indeed to be fashioned to demonstrate to what reaches of suffering the human frame could go and still withstand the shock, for it is not conceivable that any other human being could have possibly endured it. Her husband, a Frenchman named Charlie Mott, perished miserably. This woman was actually left on Isle Royale with her husband from July 1, 1845 until the following spring with only half a barrel of flour, six pounds of butter and a few beans as provisions. Her thoughts, her sensations, her struggles, her ruses to cheat hunger, the horror which she felt lest she might awake some day from a delirium to find herself eating her dead husband provide a tale of somber tragedy which is unrelieved by a single ray of light. She lived by snaring rabbits with deadfalls made out of the hair of her head. She was rescued in the spring by the crew of the Algonquin, of which Capt. John McKay, the father of Capt. George P. McKay, the present treasurer of the Lake Carriers' Association, was master.*

* Angelique later gave the following graphic account of her winter on Isle Royale, which is submitted for the tremendous force of the narrative:

"When I and my husband Charlie Mott were first married we lived at La Pointe. Mr. Douglas, Mr. Barnard and some other 'big bugs' from Detroit had come up there in the schooner Algonquin, looking for copper. From La Pointe Charlie and I went over with them, on their invitation, to Isle Royale. After landing with the rest I wandered a long way on the beach

It is strange that this tale so pitiless, so absolutely unrelieved in its cruelty, has never found its way into fiction. The mind of the novelist has depicted no suffering to equal it.

The year 1857 was one of panic. When iron's down it's down. When things are generally flat iron is the flattest of them all—and things were pretty generally flat in 1857. Money was not to be had at all. It apparently did not exist. The iron companies were hard put to it to get working capital and keep their men in good humor. It was at this time that the genius of W. J. Gordon came into play. He devised a medium of exchange which later came to be known as iron money. This form of exchange was in the shape of neatly-engraved and printed drafts for small denominations

until I saw something shining in the water. It was a piece of mass copper. When I told the Algonquin people of it they were very glad and determined at once to locate it. They said if Charlie and I would occupy it for them Charlie should have \$25 a month and I \$5 a month to cook for him. Having agreed to the bargain we returned to the Sault to lay in a good supply of provisions. There I first met Mendenhall, the man who brought us into all this trouble. He said there was no need of carrying provisions so far up the lake and at so heavy an expense as he had plenty of provisions at La Pointe. When we got to La Pointe we found that this was not so. All we could get was a half barrel of flour (which we had to borrow from the mission), six pounds of butter that smelt badly and was white like lard, and a few beans. I didn't want to go to the island until we had something more to live on, and I told Charlie so, but Mendenhall over-persuaded him. He solemnly promised him two things: First, that he would send a batteau with provisions in a few weeks; and then, at the end of three months, he would be sure to come himself and take us away. So, very much against my will, we went to Isle Royale on the first of July. Having a bark canoe and a net, for a while we lived on fish, but one day about the end of summer a storm came and we lost our canoe; and soon our net was broken and good for nothing also. Oh, how we watched and watched and watched but no batteau ever came to supply us with food; no vessel ever came to take us away; neither Mendenhall's nor any other. When at last we found that we had been deserted and that we would have to spend the whole winter on the island, and that there would be no getting away until spring, I tell you such a thought was hard to bear indeed. Our flour and butter and beans were gone. We couldn't catch any more fish. Nothing else seemed left to us but sickness, starvation and death itself. All we could do was to eat bark and roots and bitter berries that only seemed to make the hunger worse. Oh, sir, hunger is an awful thing. It eats you up so inside, and you feel so all gone, as if you must go crazy. If you could only see the holes I made around the cabin in digging for something to eat you would think it must have been some wild beast. Oh God, what I suffered there that winter from that terrible hunger, grace help me. I only wonder how I ever lived it through.

"Five days before Christmas (for you may be sure we kept account of every day) everything was gone. There was not so much as a single bean. The snow had come down thick and heavy. It was bitter, bitter cold and everything was frozen as hard as a stone. We hadn't any snow shoes. We couldn't dig any roots; we drew our belts tighter and tighter; but it was no use; you can't cheat hunger; you can't fill up that inward craving that gnaws within you like a wolf.

"Charlie suffered from it even worse than I did. As he grew weaker and weaker he lost all heart and courage. Then fever set in; it grew higher and higher until at last he went clear out of his head. One day he sprang up and seized his butcher knife and began to sharpen it on a whetstone. 'He was tired of being hungry,' he said, 'he would kill a sheep—something to eat he must have.' And then he glared at me as if he thought nobody could read his purpose but himself. I saw that I was the sheep he intended to kill and eat. All day, and all night long I watched him and kept my eyes on him, not daring to sleep, and expecting him to spring upon me at any moment; but at last I managed to wrest the knife from him and that danger was

upon the treasurer of the home office of the iron companies, issued by the mining agents in payment for labor and material. These drafts bore a general resemblance to ordinary paper currency. The banks accepted them as readily as they accepted government currency. Why not? Surely the United States government had no greater reserve for its paper than had these mining drafts. The reserve consisted of mountains of precious ore. When the banks had accumulated a hundred or a thousand dollars worth of the drafts they were sorted out according to the companies which issued them and presented to the home office, when a ninety-days' draft, interest added, would be given for them. This iron money helped to relieve a stringency which otherwise would have stalled the iron mining industry of

over. After the fever fits were gone and he came to himself, he was as kind as ever; and I never thought of telling him what a dreadful thing he had tried to do. I tried hard not to have him see me cry as I sat behind him, but sometimes I could not help it, as I thought of our hard lot, and saw him sink away and dry up until there was nothing left of him but skin and bones. At last he died so easily that I couldn't tell just when the breath did leave his body.

"This was another big trouble. Now that Charlie was dead what could I do with him? I washed him and laid him out but I had no coffin for him. How could I bury him when all around it was either rock or ground frozen as hard as a rock? And I could not bear to throw him out into the snow. For three days I remained with him in the hut, and it seemed almost like company to me, but I was afraid that if I continued to keep up the fire he would spoil. The only thing I could do was to leave him in the hut where I could sometimes see him, and go off and build a lodge for myself and take my fire with me. Having sprained my arm in nursing and lifting Charlie this was very hard work, but I did it at last.

"Oh that fire, you don't know what company it was. It seemed alive just like a person with you, as if it could almost talk, and many a time, but for its bright and cheerful blaze that put some spirits in me, I think I would have just died. One time I made too big a fire and almost burned myself out, but I had plenty of snow handy and so saved what I had built with so much labor and took better care for the future.

"Then came another big trouble—ugh—what a trouble it was—the worst trouble of all. You ask me if I wasn't afraid when thus left alone on that island. Not of the things you speak of. Sometimes it would be so light in the north, and even away up overhead like a second sunset, that the night seemed turned into day; but I was used to the dancing spirits and was not afraid of them. I was not afraid of the Mackee Monedo or Bad Spirit, for I had been brought up better at the mission than to believe all the stories that the Indians told about him. I believed that there was a Christ and that He would carry me through if I prayed to Him. But the thing that most of all I was afraid of, and that I had to pray the hardest against was this: Sometimes I was so hungry, so very hungry, and the hunger raged so in my veins that I was tempted, O, how terribly was I tempted to take Charlie and make soup of him. I knew it was wrong; I felt it was wrong; I didn't want to do it, but some day the fever might come on me as it did on him, and when I came to my senses I might find myself in the very act of eating him up. Thank God, whatever else I suffered I was spared that; but I tell you of all the other things that was the thing of which I was the most afraid, and against which I prayed the most and fought the hardest.

"When the dreadful thought came over me, or I wished to die, and die quick, rather than suffer any longer, and I could do nothing else, then I would pray; and it always seemed to me after praying hard something would turn up, or I would think of something that I had not thought of before and have new strength given me to fight it out still longer. One time in particular I remember, not long after Charlie's death, and when things were at their very worst. For more than a week I had had nothing to eat but bark, and how I prayed that night that the good God would give me something to eat, lest the ever increasing temptation would come over me at last. The next morning when I opened the door I noticed for the first time some rabbit tracks. It almost took away my breath and made my blood run through my veins like fire. In a moment I had torn a lock of hair out of my head and was plaiting strands to make a snare

the peninsula. Owing to the restricted communication between Lake Superior and the lower lakes—none whatever while the boats were not running—the iron companies could not get money with which to pay their labor, so they had to give paper of some sort. The drafts were signed by the mining agents as issued and were negotiable in the stores for general merchandise. This conception on the part of Mr. Gordon was really a stroke of genius for it enabled the companies to be prompt in paying their workmen. Some of the miners were an unreasoning lot and once struck because a boat which had just arrived had not brought currency with it, it being absolutely useless for the mining agent to explain that the particular boat had not connected with the Cleveland steamer.*

for them. As I set it I prayed that I might catch a fat one and catch him quick. That very day I caught one, and so raging hungry was I that I tore off his skin and ate him up raw. It was nearly a week before I caught another, and so it was often for weeks together. The thing seemed so very strange to me that though I had torn half the hair out of my head to make snares never once during the whole winter did I catch two rabbits at one time.

"Oh how heavily did the time hang upon me. It seemed as if the old moon would never wear out and the new one never come. At first I tried to sleep all that I could but after a while I got into such a state of mind and body that I could scarcely get any sleep night or day. When I sat still for an hour or two my limbs were so stiff and dried up that it was almost impossible for me to move them at all; so at last, like a bear in a cage, I found myself walking all the time. It was easier to walk than to do anything else. When I could do nothing else to relieve my hunger I would take a pinch of salt. Early in March I found a canoe that had been cast ashore and which I mended and made fit for use. Part of the sail I cut up and made the strips into a net. Soon the little birds began to come and then I knew that spring was coming in good earnest. God indeed had heard my prayer and I felt that I was saved. Once more I could see my mother.

"One morning in May I had good luck fishing and caught no less than four mullets at one time. Just as I was cooking them for breakfast I heard a 'gun,' and I fell back almost fainting. Then I heard another gun and I started to run down to the landing but my knees gave way and I sank to the ground. Another gun—and I was off to the boat in time to meet the crew when they came ashore. The very first man that landed was Mendenhall and he put up his hand to shake hands with me which I did. 'Where is Charlie,' said he. I told him he was asleep. He might go up to the hut and see for himself. Then they all ran off together. When Mendenhall went into the hut he saw that Charlie was dead. The men took off Charlie's clothes and shoes and saw plain enough that I had not killed him but that he had died of starvation. When I came up Mendenhall began to cry and to try to explain things. He said that 'he had sent off a batteau with provisions and didn't see why they didn't get to us.' But the boys told me it was all a lie. I was too glad to get back to my mother to do anything. I thought his own conscience ought to punish him more than I could do."

Angelique died at Sault Ste. Marie in 1874. It is related of her that once she made a wager with a Frenchman that she could carry a barrel of pork to the top of an adjoining hill and back. She won it with ease, and upon her return volunteered to carry the barrel up again with the Frenchman on top of it.

* Iron money remained in circulation on the peninsula for a number of years, or to be exact, from 1857 to 1872. This form of exchange was suspended when there was no longer occasion to employ it. The issue ceased in 1872 because the railroads had then penetrated the country and actual currency could readily be obtained. In 1874 Col. Wm. A. Gavett was sent as a special agent to the treasury department from Washington to ascertain the volume of circulation that iron money had obtained in the peninsula and to assess and collect a retroactive tax of 10 per cent. on each bill for every time it had been paid out. Some of the mines had put millions of this money in circulation. Gavett's figures on the amount of iron money circulated in the entire peninsula during these years made a total of \$100,000,000, and the tax would therefore amount to \$10,000,000, distributed among the various iron companies. It must be understood that while a great deal of the iron money was even then in actual circulation, none of it was being issued by the iron companies. Peter White went immediately to Washington, and with the aid of Zachary Chandler, obtained the passage of a relief bill. Obviously had such a retroactive tax been levied none of the ore companies could have stood the blow.

In 1857 quite a settlement had grown up about the Jackson mine and it was decided to give it a name. A council was held with the Ojibwa Indians and the name Negaunee was chosen, which signifies in their language, the first, or pioneer. It was quite appropriate, as the first mine was opened there and the first furnace, the Pioneer, established there. The following year the growing town about the Cleveland mine demanded a name. The citizens appealed to Samuel P. Ely, who in turn appealed to Peter White.

"The ridge of land upon which the Cleveland mine is located," quoth Peter White, "is the highest ground between Lake Superior and Lake Michigan. It is the divide where one may see the waters of the Carp flowing into Lake Superior and the waters of the Escanaba flowing into Lake Michigan. Ojibwa for an altitude of this character is Ishpeming."

"Let's call it Ishpeming," exclaimed Ely, "it is a beautiful word."

"It also means Heaven in an abstract sense," added Peter.

"That's better than ever," replied Ely.

And so the town was christened Ishpeming.

CHAPTER XVI.

PIG IRON MANUFACTURE IN THE PENINSULA.

NO sketch of the Lake Superior country would be complete without reference to the iron making industry as distinguished from ore mining. As a merchant dealing in pig iron Peter White made money; but when he invested his little capital in enterprises for the manufacture of pig iron, he like all the rest, lost. The time was not ripe for iron making in the peninsula. There was no consuming population within the limits of its natural market.



DR. GEORGE B. RUSSEL.

The first pig iron produced in the Lake Superior region was made in 1858 by Stephen R. Gay, who leased the forge of the Collins Iron Co., and converted it in two days at an expense of \$2 into a miniature blast furnace. The forge of the Collins Iron Co. was the third to be established in the Lake Superior country, having been built in 1854, by George B. Russel and others. The two which had preceded it were the forges of the Jackson and Marquette iron companies as related in the prologue of this story. The pig iron produced by Mr. Gay was, of course, purely experimental. The

first blast furnace in the Lake Superior region was built by the Lake Superior Iron Co. at what is now the city of Negaunee. It was called the Pioneer furnace. Work upon the furnace was begun in June, 1857, and was finished in February, 1858. Mr. E. C. Hungerford was the agent and Stephen R. Gay superintendent. The circular issued to stockholders of this company at the time of its formation called attention to the quality of iron made from Lake Superior ores in the little Catalan forges. It will



THE OLD CHARCOAL KILNS NEAR NEGAUNEE.

these blooms had undergone various tests but by far the most significant test of its breaking strength was that recorded by D. B. Martin, engineer in chief of the United States navy, to J. C. Dobbin, then secretary of the navy. His report was brief as follows:

"A piece was drawn down to one-half inch diameter (round), made into a chain link, tested in the chain proving machine and broke at $75\frac{1}{2}$ tons or 169,120 pounds."

The force of this test can be appreciated when it is known that the British admiralty proof of chain cable at that time, of which the round iron is seven-eighths of an inch in diameter, was fourteen tons, and the American proof chain of the same dimensions was fifteen tons. The piece of iron tested by Chief Engineer Martin, therefore, was more than five

times the proof test required of chain link of nearly twice the diameter. Think of the sensation which Chief Engineer Martin must have received. The chain should have broken before the weight had reached twelve tons. The wonder grew as the weight increased from ten to twenty, to thirty, to forty, to fifty, to sixty, to seventy tons and yet the chain withstood it until five and one-half more tons were added. The test established a new breaking strength for iron.



MORGAN FURNACE, BUILT IN 1863.



GREENWOOD FURNACE, BUILT IN 1864.

THE HONORABLE PETER WHITE



CLARKSBURG FURNACE, BUILT IN 1866.

making iron would be \$19.75, delivered at Chicago, and the cash price for charcoal pig being then \$38, the profit would be \$18.25 per ton. With this very encouraging prospect the directors felt bold enough to announce that they intended to erect that year (1857) one stack capable of turning out ten to twelve tons daily.

The first stack of the pioneer Iron Co. went into blast in April, 1858, and

The circular of the Pioneer Iron Co. was as glittering as the modern prospectus. The circular stated that the company controlled 4,134 acres of timber land which "at the usual estimation that a cord of wood will produce 40 bushels of charcoal of which 125 bushels will furnish fuel to melt one ton of iron, and assuming that each acre will yield sixty cords of wood, the company's lands will furnish fuel for nearly 80,000 tons of iron ore sufficient to supply two stacks for ten years." The circular estimated that the cost of



CHAMPION FURNACE, BUILT IN 1867.



MUNISING FURNACE, BUILT IN 1868.

the second one in May, 1859. The prospects of large dividends, however, were rudely shattered. The annual report issued in September, 1859, stated that beside the capital fully paid in of \$125,000, a floating debt of \$95,000 had accumulated and that the company was losing money on

every ton of iron turned out. The quality of its charcoal iron, however, was above criticism.

A number of other furnaces followed the Pioneer being located at various points with reference to different advantages for the manufacture of iron, one locating near a belt of hardwood, another near a limestone quarry, a third near an ore deposit and a fourth to secure the benefit of water privileges.

The furnace history of the upper peninsula, however, has been one of general abandonment, the Pioneer being the only one of the early furnaces



THE FURNACE AT FORESTVILLE, NEAR MARQUETTE, BUILT IN 1860.

to have survived. One can wander into the wilder portions of the Marquette range today with a feeling that no one has ever penetrated that portion of the wilderness and suddenly come upon the remains of an old charcoal furnace with its battery of ruined kilns, embankments and roadways—mute testimonials of earnest but unrewarded effort.

The first canal at Sault Ste. Marie was a state affair and was under control of a Board of Control. It seems incredible now but in 1859 in the middle of the shipping season the board concluded to close the canal for two months, beginning with the first of August, for repairs. The three mining

companies, the Cleveland, Jackson and Lake Superior made common cause of this and sent the following petition to the board which is very interesting reading at this time.

"The trade in Lake Superior iron ore is just beginning to establish itself and it possesses the elements of indefinite increase. It now occupies four-fifths of the shipping employed on this lake, and will undoubtedly be the chief source of revenue to the canal. The present season is a most critical period for this great interest. The ores of Canada and Missouri have been brought into close competition with Lake Superior ore and at



GRACE FURNACE, MARQUETTE, MICH., DESIGNED FOR ANTHRACITE COAL. BUILT IN 1871.

the points of consumption of more than four-fifths of it those ores meet our own on equal terms of facility of transportation and comparative cost. There is no essential difference in the purity of Missouri ore and our own—the development of the former has been stimulated and the cost of its production diminished by a state contribution of nearly \$2,000,000 to the railroad which transports it to the river. The occupation of our markets by the Missouri and Canada ores the present season would be an advantage which could not be regained in years. The low price at which Lake

Superior ore must be offered at the lowest lake ports obviously limits its production to the amounts that can be shipped at modern rates of freight during the most favorable season of navigation. Of the 30,000 tons shipped from this port last year not more than 1,000 tons were shipped after October 1. Its shipments must always be principally by sailing vessels, because it cannot bear as high rate of freight, and as it is principally confined to the months of June, July, August and September. After the latter months not only is the navigation of Lake Superior somewhat hazardous, but the advanced rates obtainable for other freight precludes the shipment of ore. The companies represented are under engagement to supply this season some 60,000 tons; should the canal be closed during two of the above months it will be impossible for them to furnish more than half the quantity, and the furnaces which are their customers, will supply the deficiency for the winter's manufacture with other ores. Not only would this occasion the absolute loss to the canal revenues of the diminished amount of this year's shipments, but the undue advantage thus obtained at a most critical period of the business, by competing ores, would undoubtedly be perpetuated through several years in a comparatively diminished demand for our own product. Our companies are the pioneers of the iron production on Lake Superior; for ten years past we have been continually increasing our investments and have made expenditures to the amount of more than \$1,000,000 in the development of this production without ever having realized a dollar of dividends or returns."

It is gratifying to relate that the petition of the company was successful. The common ore carrier was the sailing vessel and, as the petition relates, vessel owners believed that ore would always be carried in them principally. They were being towed through the rivers, the tug Champion towing frequently as many as seven or eight at one time.

The immediate effect of the breaking out of the war in 1861 was an added depression in the iron business, and it forced a number of the little furnaces to the wall. Stephen R. Gay, who had been instrumental in introducing blast-furnace methods in the peninsula and under whose guidance the Pioneer furnace was built, had started the Bancroft furnace in 1860. Peter White had loaned him what little money he had to spare, but Gay was unable to weather the storm, bred by the rebellion, and Peter White had to step in as secretary and treasurer to protect his own interests. He was busily engaged, too, in organizing a company to go to the front and he was elected its captain. At this stage Marquette protested. It felt that it needed him more than the war required his services and he was persuaded not to go.



TUG CHAMPION TOWING A FLEET OF SCHOONERS THROUGH THE RIVERS. THE POPULAR METHOD OF ORE TRANSPORTATION IN THE 60'S.

Marquette had now grown to be a village of nearly 2,000 inhabitants of the substantial character. Peter's duties were growing upon him, and he prepared to relinquish the office of postmaster which he had held for nearly a dozen years. He was, however, before surrendering the office, to have an experience which remains with him quite vividly today. Wherever there is wood chopping to be done there is a Frenchman to be found. The Canadian-French went to Marquette in great numbers, for all the furnaces were fed with charcoal. Many of them could neither read nor write, but nevertheless they took sweet pleasure in letters from home. They had numerous legends of Peter White. They knew that he had disappeared in years gone by whenever the mail was uncommonly late and had come back with letters for them. Some of the poor creatures thought that he went as far as Montreal for the mail. They could not understand it otherwise. He was a mysterious being to the French and their families, and was always associated in their minds with dogs, snow shoes, sleds and Indians.

In April and May, when government delivery had been regularly established, the mails were frequently late owing to the deep snows. One night a steamer arrived, the first of the season, bringing the accumulations of a month of mail. Peter had taken it to his office and was distributing it as expeditiously as possible by candlelight, as he knew that at six o'clock in the morning a large crowd would have congregated for their letters. The postoffice was merely a small room in the rear of the store, just large enough for a table, chair and the mail bags. Peter had dumped the mail upon the table and was standing distributing the letters into their respective boxes when he heard a slight noise in the forward part of the store. Michael Belloin, a tall and powerful Frenchman, was approaching. It needed but one look at Michael to observe that he had been drinking heavily.

"You got any letter for Micho, Monsieur Pete," asked he, staggering up to the rail.

"Come in the morning," answered Peter. "I am just assorting the mail now."

"I guess I will come into your little poss offis and sit on dat little chair and see you put dose lette in that box," answered Michael, and suiting the action to the word he undertook to enter the narrow door.

"There isn't room for you," exclaimed Peter. "It is against the law. You cannot come in."

"Oh, ho! What you 'spose I care for de law or you neder? I will come in anyhow. You can't stop me."

As he lifted one foot he stepped over a mail bag at the door, Peter gave

him a quick push which caused him to fall backward to the floor and very much enraged him. Arising he paced backward and forward across the store floor, grating his teeth and clenching his fists, calling Peter all manner of names and uttering all sorts of imprecations and epithets in French. Finding that Peter was paying no attention to him he stopped at the door of the little postoffice and shouted:

"You want to preten you don stand French. Mon Dieu, you don talk good Hinglish. You just a half a breed, half French and half Hinjin. I know what you want. You want me to strike you then you bring me on the justice offis tomorrow morning and make me pay five dolar. Aha! You can't fool Frenchman like dat. You come on to de street if you me to strike you. If I strike you I won't leave two greas spot on you. If I strike you you will think it is a French horse kick you. You see dat spit down dere? The sun he come he dry it up. Dat's just like you. If I strike you you can't fine yourself anymore. You wouldn't know where you gone to. I come to your poss offis to 'quire for some lette, and I hax you, just so polite I can, if you got any lette for Micho, and you say 'Get out.' Ain't you shame yourself—don't you sorry you treat me that way? I'm going to tell you something make you sorry that you say so cross to me. I tink I will make your face come red. Some Frenchmen been come here good many year ago; he ben tole me dat you use to carry de mail on your back and a pack on your back, a hax in your hand, snow shoe on your feet and sometime tree poor littel dog on a train draw de mail tru de woods, and your tree littel dog was so poor you could see right tru him. (And here the excited speaker held up his hands with fingers widely distended to represent the visible ribs of the poor dog.) Cos you was so damn poor. You didn have money to buy provision for dat dog. Now you got to be the pos offis master and you tink you are the biggest big bug on dis town—and when I come to your poss offis just so polite I can and hax you you got any lette for Micho, you say 'Get out dar' like one dam dog. I like to know if dat's the way to treat a gentleman. I guess you didn't tot dat I know I could tell you all dat. You tink now you biggest big bug on this whole town."

CHAPTER XVII.

PETER WHITE MAKES MONEY RAPIDLY.

IN 1862 the Cleveland and Jackson iron companies declared their first dividend and in 1863 Peter White incorporated his bank into a National bank, calling it the First National Bank of Marquette. The national banking law was then a little more than a year old. He induced Samuel P. Ely to accept the presidency while he himself became the cashier. Mean-



VILLAGE OF MARQUETTE ABOUT 1861.

while he was selling off and on a little iron to vesselmen. When no other freights offered, vessel men were in the habit of buying a little iron in the hope that they could sell it for a few dollars extra at the lower lake ports and thus earn a fair freight rate for the trip. If iron could be bought

at \$15 at Marquette and sold for \$20 at a lower lake port there was fair remuneration in it for the vessel owner.

Peter had come into possession of considerable iron through his connection with the Bancroft furnace and he had disposed of it gradually to vessels as they called at Marquette. There are some men who are gifted with prophetic vision. Possibly it is only reasoning power developed to the highest sense. Grant was slowly but surely hemming the Confederate armies in and the country was assuming a healthier and more normal tone. All at once it dawned upon Peter White that the nation would need iron and that the foundries and mills were going to be caught without an adequate



MARQUETTE DOCKS AND SHIPPING ABOUT 1861.

supply of their raw material—pig iron—on hand when the demand came. He packed his grip and started on the track of vessels to which he had been selling iron for months previously. He found a quantity of his own iron on several of the docks, particularly Detroit, and he bought it back at an advance of \$6 per ton over the price at which he had sold it—surely a good profit for the vessel man. He bought all that he could find upon this trip, and then he went to Cleveland. Almost before he got there the

demand came, greatly stimulated by heavy orders from the government for guns and railway equipment.

"Want any pig iron?" asked Peter White, walking into the office of the Otis Foundry Co. in Cleveland.

"I should say we do," replied Otis, "and I'll pay \$42 a ton for it if I can get any."

Peter sold 1,000 tons at that figure before the day was done. He had paid \$24 a ton for it. In two weeks he had cleared \$35,000. He kept mighty still about it, though. He had the shrewdness to know that it is good policy to keep still when you're making money and to keep still when you're losing money. For the charcoal iron of the Bancroft furnace he received before the year was out \$85, \$90 and \$95 per ton according to the various grades, the highest figure iron has ever reached in the history of the country. It was these transactions in iron which laid the foundation of Peter White's fortune.

The iron companies by this time got fairly upon their feet and were returning handsome dividends upon the capital invested. The Lake Superior region had, however, scarcely been scratched. The shipments of 1,449 tons in 1855 had increased to 114,401 tons in 1860 but had fallen to 49,909 tons in 1861 upon the outbreak of the civil war. They reached the total of 243,127 tons in 1864 showing a decided revival in the iron trade. The iron resources of Lake Superior were never carried forward as a mere speculation but as a legitimate business enterprise, to which fact is probably due the scant recognition that the industry received in the newspapers of the day. It is doubtful whether the existence of the companies was known on the stock exchanges of New York and Boston. It may seem surprising at this day, now that we know so much of what the iron companies actually possessed that the financial part of the enterprise should have been in doubt. But it was, and seriously so. Time was the asset which all of these iron companies needed.

One Sunday afternoon in 1864 Peter White was down at the dock watching the unloading of a steamer which had just arrived. A distinguished-looking gentleman approached him, who turned out to be none other than Mr. Breckenridge, the vice-president of the Confederacy, and who had just been placed upon parole upon his honor. He was enroute for Canadian territory with a party of Southern gentlemen upon a hunting expedition and telling Peter White that he had just been informed that he was the banker of the town, asked him if he would let him have gold for his paper currency.

Peter White instantly took the vice-president of the Confederacy to his bank building, and, unlocking the door with his private key, entered. The teller who had a room overhead, was seated in the bank reading. Peter introduced his distinguished companion, and stating his mission requested the teller to open the door to the vault. To the intense astonishment of the vice-president of the Confederacy, and no less to that of Peter White himself, the teller refused to do anything of the kind.

"I do not believe," said he, "that business of any character whatever



MARQUETTE HARBOR IN 1863, SHOWING THE TYPE OF ORE CARRIER PREVAILING AT THAT TIME.

should be transacted on Sunday. This gentleman can doubtless wait until tomorrow morning."

Mr. Breckenridge explained that his steamer was to leave that very afternoon and that, unfortunately, he could not wait. He added that he would not have sought the favor had it been possible for him to wait until the morrow. It became quite clear, however, that the teller's religious scruples were too deeply rooted to be disturbed by the plight of the vice-

president of the Confederacy. The more they argued the more resolute he grew.

"Very well," said Peter, "write the number of the combination on a piece of paper and I will open the safe. You can just scribble the figures in an absent-minded way."

"That would be equivalent to opening the safe," replied the teller. "It would be merely whipping the devil around the stump. I cannot transact business on Sunday, either directly or indirectly. I decline to give you the combination of the safe."

Most men would have exploded and Peter White is not to be blamed if his color heightened a bit. But he said nothing.

"I believe I can get the money elsewhere," he said, turning to Mr. Breckenridge and leading the way out of the bank.

He secured the gold from a friend and Breckenridge went on his way rejoicing. The next morning the teller entered Peter White's private office and tendered his resignation.

"I don't suppose," said he, "that you will have any further use for my services."

Peter White tore up the letter of resignation.

"I am not going to discharge you for sticking to your principles," said he. "I couldn't discharge any man for defending his conviction. I would not, however, have acted as you did. I don't believe you displayed good judgment."

A little later when the teller wanted to go into business for himself Peter White gave him \$10,000 without security.

CHAPTER XVIII.

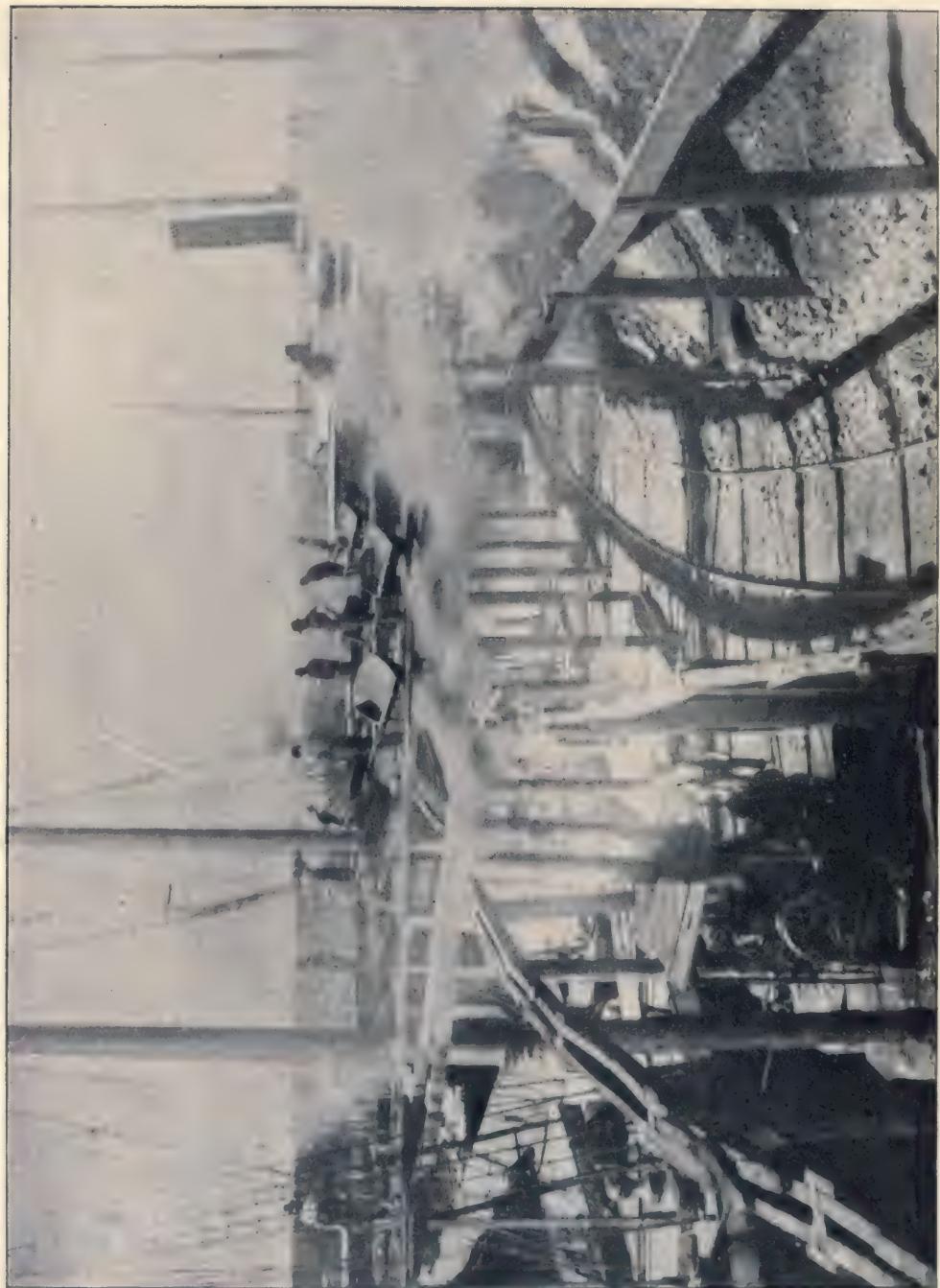
SOLVING THE PROBLEM OF UNLOADING ORE.

IT was in 1865 that the Peninsula Railroad Co. organized by Chicago and New York capitalists as a part of the Chicago & Northwestern system, was extended from Escanaba on Green Bay to the iron mines of Ishpeming and Negaunee, a distance of 62 miles, thus affording another outlet for the shipment of ore through the Straits of Mackinac.

It was during this year also that George B. Stuntz concluded that he would pay some attention to what Joe Posey had been telling him. Stuntz had gone to the Lake Superior country in 1852 and settled in the village of Superior. There was no Duluth in those days. Posey was a woodsman and had gone all through the region north of Lake Superior on the trail which for a hundred years had been traveled by the traders and guides of the fur companies. In the course of his travels through the north, Posey had crossed Vermilion Lake and had seen what he took to be great mineral outcroppings on its eastern side. Stuntz, who knew of the Marquette development, thought it possible that the iron formation might be repeated. It was in October, 1865, that Stuntz left Superior with Indian canoe men and guides for Vermilion Lake. It was not the three-hour trip that it is to-day over a solid railway but a weary tramp of weeks. There is the portage from the Fond du Lac, "the head of the lake" around the rapids of the St. Louis river, a scramble of nearly ten miles through brush and over windfalls, then a canoe ride of nearly 100 miles along the swift and black St. Louis, a portage of five miles across to Pike river and a further voyage of 30 miles along the watershed before the southern end of Vermilion lake was reached. Curiously enough in traversing this watershed he was crossing the greatest ore body in the world—Mesabi—but he had no knowledge then of the wealth beneath his feet. Stuntz found two outcroppings where Posey had indicated, one of which later became the Lee mine and the other the Breitung pit. He broke off 60 pounds of it with sledges, a beautiful specular hematite, which his party had to shoulder together with their supplies for a weary

tramp back to Superior, for the rivers by that time had all frozen. Stuntz's attempts to interest capital were futile, as the distance was considered too great. Vermilion was not to be developed then.

The Cleveland Company's dock at Marquette with its ore pocket was loading the little schooners with considerable dispatch, but the problem of unloading the vessels at Cleveland and other Lake Erie ports by means of a horse, hoisting the ore out of the hold with blocks and tackle was extremely slow and tedious work. The firm of Bothwell & Ferris, which operated the Nypano docks (now the Erie railway), in the old river bed at Cleveland, usually employed about forty horses in the work of unloading the schooners. The horses pulled the tubs to the deck of the schooner and the ore was then dumped into barrows and wheeled ashore. It ordinarily took two days and more to unload a cargo of 400 tons which was accounted a considerable cargo in those days. One day in the spring of 1867 J. D. Bothwell, who was watching a small engine lifting piles into the air preparatory to driving them into the river bed, conceived the idea that an engine of somewhat similar design, could also hoist the ore from the holds of the vessels. He approached Robert Wallace, of Wallace, Pankhurst & Co., with the idea, and Wallace at once designed and built a little portable 6 x 12 engine, fastened to the side of the boiler. It could be moved about the dock to any desired position and could perform the same work which the horses were doing. After the engine had been installed the first vessel to come along was the bark Massillon, under command of Capt. Smith Moore, with a full cargo of 400 tons. When Smith saw the queer little thing moving to its position alongside the vessel he inquired for what purpose it was being placed there, and upon being told that it was for the purpose of unloading his vessel, he swore roundly. It is on record that he strode the deck of the Massillon in a towering rage and demanded with energetic and eloquent profanity that the horses be substituted on the ground that he did not want to remain in port during the balance of the week. Notwithstanding Smith's protest the Massillon was the first ore vessel to be unloaded by machinery. The little engine proved to be much more expeditious in its work than the horses, for before the day was done the bark was unloaded. Smith's anger faded as he saw the little engine bend to its work, and was delighted to find that he was ready to leave that very evening. Bothwell & Ferris paid Wallace, Pankhurst & Co., \$1,200 for the engine. It was the means of making the firm of Bothwell & Ferris rich, for they were enabled to do the work quicker and cheaper, and as their contract with the railway



THE LITTLE DOCK ENGINE WAS INSTALLED ON THE NYMPANO DOCK IN CLEVELAND, 1867. THIS METHOD OF UNLOADING ORE
CONTINUED UNTIL 1880.

was based upon a fixed percentage of the tonnage handled, quickness and cheapness meant a double advantage to them. The little engine created a furore along Lake Erie docks and Wallace, Pankhurst & Co. received orders for nine of them immediately thereafter.

"It meant a big boost in our business too," said Robert Wallace, telling the story. "I remember what a mighty big thing those contracts seemed to us—and to have nine of them, one right after the other. It literally put us on our feet."

These little engines did no more than to haul the ore to the decks in tubs, from which it was dumped into barrows and wheeled ashore on the gang plank. This method of unloading continued for nearly fifteen years thereafter.

Marquette in its center slopes gently to the lake and both east and west the descent is abrupt. The western part is known as the Ridge, a most appropriate name, since it is both rugged and high. It commands a view of the entire city, the beautiful Presque Isle and a vast expanse of the waters of Lake Superior, sometimes turbulent and sometimes as placid as a pond. It was upon this ridge, directly overlooking the lake, that Peter White secured thirteen acres of land and in 1867 built the house which is his home to this day. It is the most splendid residence in Marquette.

In 1868 the town of Marquette was burned to the ground, but Peter White's house on the ridge was not a part of the catastrophe. The only thing of a business kind saved was the Cleveland dock. Among the ruins was the plant of the Mining Journal, owned by Peter White. He sold the good will and subscription list to A. P. Swineford for \$100. There was little else to sell at that moment, but even at that it was a great bargain. Swineford resurrected the remains and made a good paper out of it.

Peter White had now grown to be an influential citizen and was clearly and unmistakably the first man in Marquette. He succeeded to the presidency of the First National Bank in 1869, which office he has held continuously since. As banker, real estate agent and capitalist he was invariably consulted when any new enterprise was started in the town. If it was worthy he encouraged it by a personal investment, and by this policy he both made and lost money.

"I have bought," said he in later years, "considerable stock in various companies, but I have never sold a share in any of them. Some have been good and some have been very bad, but on the whole I have come out a little ahead. At any rate, by this policy I am sure that no person has ever lost any money through me."

He also started a general insurance business with special reference to marine insurance, both hull and cargo, which later became extensive.

In 1869 the first steamer to be designed for ore carrying purposes exclusively was built by Peck & Masters, of Cleveland. This was the R. J. Hackett, and she was built to carry the ore of the Jackson mine. The Hackett was 211 ft. long and 33 ft. beam. The following year the Forest City was built as her consort. The Forest City was 213 ft. long and 33 ft. beam. The system of propeller and consort grew in popularity and gradually displaced the crude sailing vessel. It abolished the profitable business of towing up and down the rivers which the tugs had enjoyed. To counteract it the tugs would occasionally tow the sailing vessels all the way from lower to upper lake ports and back, but this effort was only temporary, the sailing vessels gradually abandoning their independent existence and becoming consorts to steamers themselves.

When the town of Marquette was incorporated and was entitled to have a mayor the people turned instinctively to Peter White. He consented to run. He was a Democrat in principle and is so yet, but he severed his affiliation with the party when it seemed willing to make a sacrificial offering of the financial credit of the country upon the altar of free silver a few years ago. Now envy is one of human nature's frailties, and when Peter White consented to run for mayor a certain number got together and nominated a rival candidate. Peter White made no campaign and neither did his supporters; but the opposition worked night and day. They toured the highways and byways incessantly, and when the votes were counted it was found that the opposition had elected their candidate by a majority of sixty-one. Great was the indignation of Marquette. They felt that an outrage had been committed. The successful candidate was fearfully mortified over the result. He declared that he went into the contest as a joke and that he would not have gone into it at all if he had had the remotest idea that he was going to be elected. He implored Peter White to take the office and when Peter White declined he actually wept. Four years later when Peter White was out of town he was unanimously elected mayor of Marquette. This is probably the only instance on record where a man obtained a mayoralty without a single dissenting vote. But he sent in his declination by wire. And so he never has been mayor of the town.

A lasting friendship was formed between Peter White and Samuel P. Ely, and when Mr. Ely was elected mayor of Marquette in 1872, Peter White commemorated his administration by building a library and dedicating it to the city. It was a small affair but it was the germ of a splendid

structure. A little later he presented to the city ten thousand volumes from his own private library.

In 1874 the steamer V. H. Ketchum was built at Marine City, and thousands gathered to see her go overboard, for she was 20 feet longer than anything afloat and was regarded as a floating monster. She was, in fact, far in advance of dock facilities, and though she was not profitable at first she subsequently earned fortunes for her owners. The Ketchum was 233 ft. long, 41 ft. beam and 24 ft. deep.

In 1875 a number of Detroit capitalists began to project a railway from St. Ignace to Marquette, under the title of the Detroit, Mackinaw & Mar-



THE STEAMER V. H. KETCHUM, LAUNCHED IN 1874. SHE WAS THE LARGEST VESSEL ON THE LAKES.

quette Railway, and Peter White was again sent to the legislature to see about the grant to aid in the development of this enterprise. Upon this occasion he went to the senate. His influence was felt instantly and irresistibly. It had been nearly twenty years since he had made the trip to Lansing on snow shoes, but the memory of it had not been forgotten. This time he went by railway. Through his effort the projected railway became an assured undertaking and the people of Marquette went out to meet him upon his return from the senate. A delegation endeavored to intercept his train at

a little railway station about twenty miles from Marquette, but these he successfully evaded. Not so at the railway station at Marquette, however. The whole town had congregated there to greet him and the enthusiasm was unbounded. Amid laughter, shouting, fireworks and general rejoicing they unhitched the horses from his sleigh and drew him to his home.

Meanwhile George B. Stuntz was endeavoring to interest capital in the iron ore deposits near Vermilion Lake, which he had discovered ten years previously. He induced W. W. Spalding of Ontonagon and George C. Stone of Duluth to look into the deposits. They took with them A. H. Chester, professor of geology in Hamilton college. These men went to examine what had been reported to Spalding as an immense iron deposit south and east of Vermilion lake. It may be noted that this was the first examination for iron ore ever made upon the iron range which has since become the wonder of the world—Mesabi—and the fact that it was made upon a part of the range which has so far proved of no real value does not militate against the enterprise. Stuntz endeavored to lead Chester to his former finds upon Vermilion lake but the latter was skeptical. He did, however, furnish Stuntz two Indians and a keg of powder. Stuntz soon found his old location, commenced drilling and shot the first blast in the history of iron mining in Minnesota. What with digging and blasting they broke off about sixty tons of ore which, it was afterwards found, ran from 65 to 66 per cent in iron of Bessemer quality. Prof. Chester, who was at work upon the Mesabi, was at once summoned and was astonished at the result.

"Why," said he, "with three men you have obtained more ore than I have found down there with twenty-two men."

Although this excellent showing was made and although Stuntz called Chester's attention to finds further east at what later became the Breitung pit, the capitalists backing Chester were so discouraged at the poor showing on the other range that nothing was done. Vermilion was not even to be opened then.

In 1876 Peter White established his reputation as a stump speaker by campaigning in the peninsula on behalf of Samuel J. Tilden, who was the democratic nominee for president of the United States. Peter White's friendship for him began in 1864, when Mr. Tilden became identified with the iron mines of the peninsula, and no more active campaign was ever waged in that section of the country than Mr. White waged for the friend whom he has always believed was elected to the great office of president.

In 1877 a new iron ore region came to the help of the Marquette range.

It was developed in the northern part of Menominee county and the southern part of Marquette county in Michigan, extending also into the adjoining county of Florence in the state of Wisconsin. It became known as the Menominee range, and by the close of 1878 had shipped 82,621 tons. In 1879 it shipped 245,672 tons, and has become an increasingly valuable source of mineral wealth since.

Two ranges were now contributors to the stream of ore going down the lakes. Vessels were gradually growing larger and more numerous, but the method of unloading had actually made no progress since Robert Wallace installed his little portable engines on the docks. Vessels were being unloaded by means of the wheelbarrow and gang plank with infinite toil and delay. Alexander E. Brown, a young man of great mechanical ingenuity, saw in the situation a most attractive engineering problem and from a knowledge of the business gained in the office of his father, Fayette Brown, he was aware that it possessed indefinite commercial possibilities. In 1880 he directed his inventive powers to the problem with the result that he developed a system of hoisting and conveying by machinery that has since been brought to a high state of efficiency. The Brown equipment served the combined purpose of direct transfer from vessels to cars, transfer from vessels to storage and reloading from storage to cars. This development on the part of Mr. Brown of high hoisting and conveying speeds produced really remarkable results and reduced the time greatly for unloading; but nevertheless the fact that the tubs had still to be filled by hand and that the loads were relatively small militated seriously against large hourly capacities in unloading. The time for unloading, however, was materially reduced by nesting or grouping these machines so that ore could be taken from all hatches simultaneously.

It was in 1880, that Geo. C. Stone succeeded in interesting Charlemange Tower, Sr., and others in the Vermilion district, and a second report was requested from Chester. Tower comprehended the situation immediately and took hold of it with vigor. Sioux scrip was laid on the land and the development of what was later known as the Minnesota mine began. They made one of the greatest surface showings ever known in an iron ore location. The next year the construction of the Duluth & Iron Range Railway was begun. It was through a territory barren, steep, rocky, broken and bewildering, but the projectors had what the pioneers of the Marquette range never had, money and modern machinery. But their faith was majestic, for there was not an ounce of traffic in sight other than what could be obtained from the single undeveloped mine. The new mine, the

Minnesota, made its first shipment of 62,124 tons in 1884. It is an interesting commentary to make that the shipments of this original mine are now but 3 per cent of the total annual shipments of the Vermilion range. Had there been no more ore than what was contained in the original mine, which was all that the original projectors had to go upon, the enterprise would never have justified the outlay in railway construction.

In 1884 the Gogebic district, lying west of the Menominee, partly in Michigan and partly in Wisconsin, was also discovered and developed. The first shipment of ore from this range amounted to 966 gross tons from the Colby mine. The ore was shipped on Nov. 11, 1884, by the Poenokee & Gogebic Development Co. on the schooner Gawn, and was delivered at Erie, Pa. It was consigned to Tuttle, Oglebay & Co. The original bill of lading has been preserved; is appropriately framed and is now in the office of Oglebay, Norton & Co., Cleveland, successors to Tuttle, Oglebay & Co.

Peter White had been campaigning in the peninsula for Grover Cleveland as vigorously as he had for Tilden, eight years before, and there is to be observed in his scrap book in the small, delicate handwriting of the great Democratic president a letter of regret that he should have left Washington without calling at the white house after the inauguration. That letter from the president, who was desirous of having Peter White in his administration, reached Marquette almost as soon as Peter White did. But Peter White wanted no office.

During the years in which he was connected with the Cleveland Company as its real estate manager, Peter White sold hundreds of thousands of dollars worth of property, the principal transaction being the sale of the Cleveland dock to the Marquette & Western Railway in 1882, a branch of the Detroit, Mackinaw & Marquette, which was constructed to tap the iron mines and was the only rival the old Iron Mountain Railway ever had. The rivalry did not last long, however, as the Marquette & Western quickly absorbed the Iron Mountain. They are all a part of the Duluth, South Shore & Atlantic.

CHAPTER XIX.

DISCOVERY OF THE MESABI RANGE.

IT was in 1890 that the first successful exploration for iron ore began on the Mesabi range. The credit for the early development of this range belongs to Alfred and Leonidas Merritt, as the Mountain Iron mine was found Nov. 16, 1890, by a crew of workmen under Capt. J. A. Nichols, who was in the employ of the Merritts.

In August following the Biwabic group was discovered by John McCaskill, Wilbur Merritt and Captain Nichols. A few months later the Merritts found the Missabe Mountain ore body, now a portion of the Virginia group, and shortly thereafter Frank Hibbing and others brought the great ore body of the Hibbing district to light. The Fayal bend was traced the following year by J. Uno Sebenius, D. T. Adams and M. Van Buskirk. Meanwhile, regardless of all physical obstacles, the Duluth, Missabe & Northern railroad had been projected and completed to the Mountain Iron mine in November, 1892. On Nov. 11, 1892, the Mountain Iron Mining Co. made the first shipment of ore made from the Mesabi range, shipping 2,073 gross tons from the Mountain Iron mine. This was consigned to Oglebay, Norton & Co., Cleveland, who, according to their custom, have preserved and framed the first bill of lading. It is dated Nov. 11, and was shipped on barge 102. Then followed the Eveleth group by the discovery of the Adams mine by J. Uno Sebenius and Louis Rouchleau. In September, 1893, the great Stevenson mine was discovered and explored by Edmund J. Longyear. These mines still remain the chief center of mining and ore tonnage upon the Mesabi range.

Mesabi is the Indian word for giant, and this range is most appropriately named. It is the giant's range, outrivalling any ore deposit known to exist on earth, the leading mines sending forward from 1,500,000 to 2,000,000 tons of ore annually. Enormous deposits of it lie loose like dust and is mined as cheaply as the proverbial dust is shoveled. In fact Mesabi is largely a steam shovel proposition.

Mesabi was discovered at the time when, notwithstanding the then



THE STEAMER E. H. GARY OF THE PITTSBURG STEAMSHIP CO.'S FLEET UNDER THE HULETT CLAM-SHELLS, AND
BROWN ELECTRICS AT CONNEAUT.

unprecedented demand for iron ore the other ranges had no difficulty in meeting all requirements. Indeed more ore was piled up on Lake Erie docks at the close of the season of 1892 than at any previous period in the history of the Lake Superior region. Under such conditions the discovery of unlimited millions of tons of soft ore tributary to these same docks and the same trade could not but be serious to many of the old range companies. Such a depreciation in the value of mines and mining stocks, which were earning a good dividend, as followed on the heels of this discovery has seldom if ever been witnessed in this country. It is incredible that men of experience in the iron ore industry, who had seen one new ore range after another discovered and developed, and who were heavily interested in iron mines, should have been so short sighted as to refuse to accept the opportunity repeatedly offered to them to secure holdings in the new field and thus recoup themselves for any loss that might be sustained in their old range holdings in competition with the greater abundance and lower working cost of ore in the new range. What a commentary on the blindness of human nature it is that the greatest iron range ever discovered should have been disregarded by those best able to appreciate it and that the owners of the newly discovered mines should have knocked vainly for assistance on the doors of offices in Cleveland, Pittsburg, Chicago and other headquarters of the iron trade.

There is this to be said, however,—that the first results of Mesabi ore in the blast furnace were as disappointing as the first results of Marquette ore in the blast furnace. The proportion of fine ore in some of the mines was very large, and in smelting it considerable of this fine ore blew over with the gas. The prejudice against Mesabi ore was as strong as was the prejudice against the soft hematites when they were first introduced. Many exaggerated and some humorous stories bearing on the fine character of Mesabi ore were told, such as how all the boiler fires at one furnace had been put out by the large quantity of flue dust in the gas, and how a train load of 500 tons was caught in a windstorm en route to Pittsburg, only 250 tons finally reaching Pittsburg furnaces. But this prejudice was rapidly overcome and the industrial supremacy of the United States now rests on the firm basis of Mesabi. Though only twelve years old its total shipments have already exceeded those of Marquette, the earliest of all the ranges. The record of the ranges to date is: Mesabi, 78,796,357 gross tons; Marquette, 72,590,112 tons; Menominee, 40,071,086 tons; Gogebic, 43,129,473 tons; Vermilion, 22,020,718 tons, making a grand total with some minor unclassified shipments of 265,696,359 tons.

Meanwhile inventive genius continued incessantly at work to further solve the unloading problem and to perfect the unloading equipment. The McMyler Manufacturing Co. put on the docks a revolving crane with scoop attachment which did excellent service. Ore was being hoisted out of the holds rapidly but the tubs were still being filled by hand. The problem was to fill the tubs automatically. This has now been remarkably facilitated by two firms, Hoover & Mason, of Chicago, and



THE HULETT CLAM-SHELL BUCKET IN THE WOLVIN'S HOLD.

the Wellman-Seaver-Morgan Co. of Cleveland. Mr. Mason invented an automatic bucket which fills itself in any grade of ore and applying the bucket to a hoisting tower of the same general construction as is commonly used in the unloading of coal. The general features of the Hoover & Mason bucket are its great weight, its tremendous spread when opened and the peculiar movement of the blades when closing. The bucket has a capacity of five tons of ore and a spread when open of about 18 ft. The first motion

of the blades on closing is downward to effect a partial penetration of the ore; but during the early stages of operation of closing the blades swing towards the horizontal, giving a scraping action for almost the entire reach. It is this scraping action that differentiates the bucket from the clam-shell or orange-peel type, and it is by virtue of this action which gathers together the loose ore on the pile that the bucket closes itself so successfully.

It was left to Mr. George H. Hulett of the Wellman-Seaver-Morgan Co., however, to develop an unloading machine that has established the lake record for unloading. In 1899 he induced the Carnegie Steel Co. to take up his plan for a great unloading machine on the docks at Conneaut. The



THE BROWN ELECTRICAL UNLOADING MACHINES AT CONNEAUT.

Hulett machine is entirely original. A very massive gantry traveling on rails parallel to the wharf supports a carriage which has a traverse at right angles to the face of the dock. This carriage in turn supports a tilting girder at the water end of which hangs a ram carrying a clam-shell bucket. This bucket is rotatable in either direction around the axis of the ram, thus affording the opportunity to reach not only the ore that lies under the hatch opening, but also that portion which is filled up between the hatchways. The ram carrying the bucket is always kept in a vertical position by means of a parallel motion device fixed to its head. When unloading from vessels the carriage carrying the tilting arm moves forward, bringing the ram over the hatchway. The arm is then hydraulically tilted, the ram descends into the

vessel and the bucket is brought into contact with the ore. The bucket is of the clam-shell type with its blades swung from the outer corners so as to give a wide reach. It is operated by a hydraulic cylinder and in closing is aided by the unbalanced load of the tilting arm, insuring thereby a full load of ore. The buckets are of ten tons capacity and are controlled by operators who are located on the rams immediately above the buckets and who, therefore, descend into the vessel with them. The unloading record of the great lakes was established by these machines on the steamer Augustus B. Wolvin, at Conneaut, in July, 1904. The actual time the Wolvin was under the unloading machines was four hours and thirty minutes, or from 7:22 a. m. until 11:52 a. m. The average time that the four Hulett machines were working on her was four hours and six minutes, during which time they took out 7,257 gross tons of ore. The maximum amount taken out in any one hour was 681 tons by the No. 3 Hulett machine. The Wolvin's cargo upon this occasion was 9,945 tons, of which the remaining 2,688 tons was taken out in three hours and forty-one minutes by four electrical machines of the Brown type. This record has now been broken a trifle by these same machines—four Huletts and four Browns—taking 10,514 tons out of the steamer George W. Perkins in July, 1905, in four hours and ten minutes. This ore was put directly aboard cars, but owing to the fact that some cars begun by ore machine were finished by the other, it was impossible to accurately determine the amount taken out by each type of machine.



DEMOLISHING THE ORIGINAL LOCKS OF 1855 TO MAKE ROOM FOR THE GREAT POF LOCK, SHOWING SIDE OF ORIGINAL LOCK.

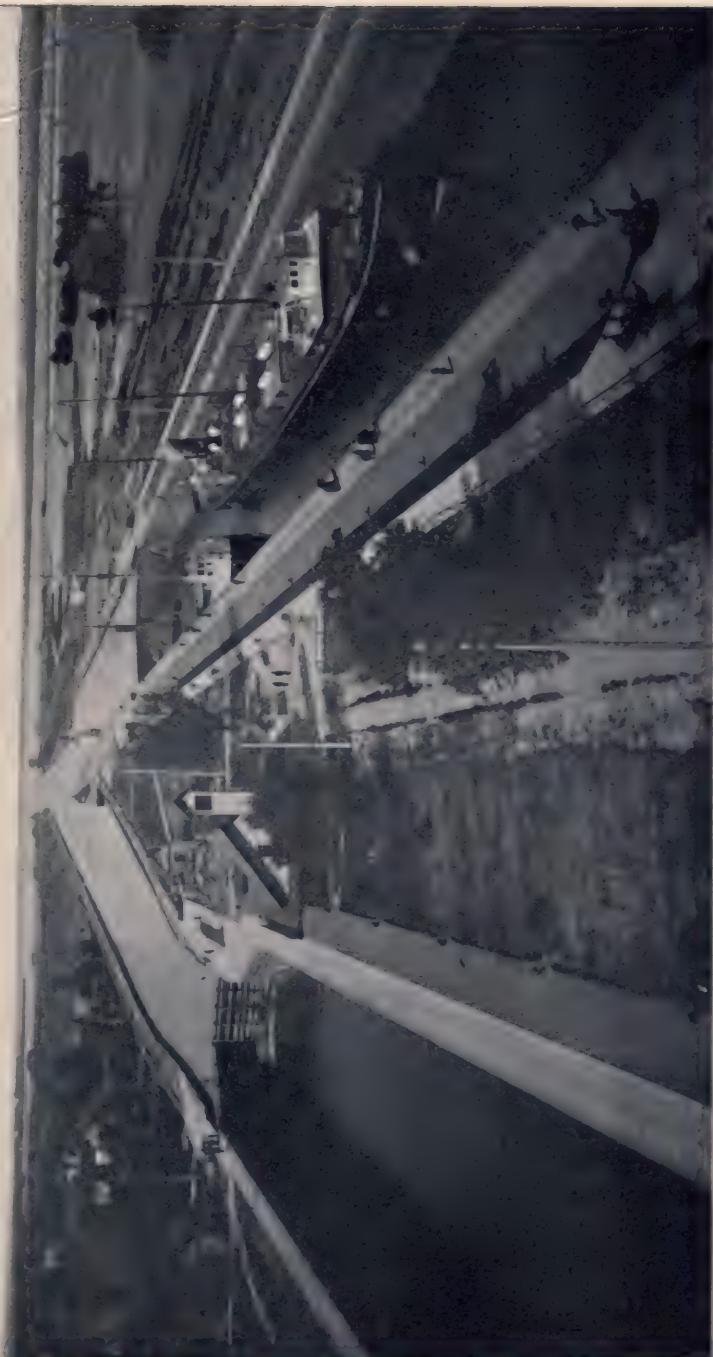
CHAPTER XX

SUBSEQUENT LOCKS OF SAULT STE. MARIE CANAL

LESS interest attaches, of course, to the subsequent development of the canals at Sault Ste. Marie, but as they have regulated not only the growth of commerce but the increasing dimensions of the vessels as well it would be best to outline their growth completely. When the first canal was completed Lake Superior was, of course, a wilderness. There were no cities along its shores, no great wheat fields in the region beyond, and commerce, therefore, increased slowly. The first canal, however, served to fix for many years the depth of water to be obtained in the harbors and in the channels connecting the lakes. The depth of the water in but few of the lake harbors was as much as 12 ft., while in the channels connecting the lakes there were serious obstructions. In the Sault Ste. Marie river a channel several miles long had to be dredged before the limited commerce to and from Lake Superior could make use of the full draught provided at the canal, while the St. Clair flats presented a like obstacle to the far greater commerce passing there. The Civil War which broke out six years after the canal was completed absorbed the energies of the country and all other interests became secondary to it. At the close of the war the principal articles transported by water were grain and lumber. The receipts of grain and lumber at Buffalo in 1866 were about 1,500,000 tons. The receipts of lumber at Chicago alone were about 1,400,000 tons by lake, while the iron ore shipments of all the lake ports were less than 300,000 tons and the coal tonnage but a little greater than that of iron ore.

The Federal government then began to pursue a somewhat more liberal policy toward internal improvements, and plans were executed to make the depth of lake harbors equivalent to the locks at Sault Ste. Marie. This depth of 12 ft., however, sufficed only for a few years. By 1870, or soon thereafter, vessels drawing 13 ft. and upwards could enter the more important ports, such as Buffalo, Cleveland and Chicago, and a demand for a depth of 16 ft. became general. The initiative was again taken at Sault Ste. Marie by a project for increasing the depth from 12 to 16 ft. and building a new

AMERICAN LOCKS OF SAULT STE. MARIE CANAL.



lock 515 ft. long and 80 ft. wide, overcoming the entire difference of level of about 18 ft. by a single lift. These dimensions were unprecedented in canal construction and the lift of 18 ft. was almost universally criticised as injudicious.

The improvement commenced in 1870 was completed in 1881 at a cost of \$2,200,000. In the meantime the State of Michigan ceded the canal to the United States by act approved March 1, 1881, and the latter assumed control on June 9 of that year. The new locks were known as the Weitzel locks. They were built under the direction of Alfred Noble though designed by Gen. O. M. Poe. Before the increased depth could be made fully available the St. Mary's river had to be deepened in numerous places, the St. Clair flats canal dredged and a cut made through the reef of rock at the mouth of the Detroit river. The 16 ft. channel was completed in 1884. In the meantime the principal harbors were put in readiness and a fleet of large vessels was built to take full advantage of the new facilities. The growth of traffic had been notable. The average annual receipts of grain at Buffalo had increased about 50 per cent. The shipment of coal by lake at the beginning of the period was almost nil; at the end it was nearly 4,000,000 tons, or more than half the entire Suez canal traffic. Iron ore shipments had increased from 300,000 tons in 1866 to 2,300,000 tons in 1884. The number of vessels on the lakes had increased but slightly but the gross tonnage had increased about 50 per cent. Freight rates had fallen remarkably; on iron ore from Lake Superior to Lake Erie ports the rates had fallen from \$3.00 to \$1.35, and on wheat from Chicago to Buffalo from 9 to 2 $\frac{1}{4}$ cents a bushel. The net registered tonnage through the St. Mary's canal had increased 440 per cent.

It has been the history of lake improvements for the past thirty years that they become inadequate even before they are completed. Before the project for 16 ft. navigation had been fully carried out it was clearly seen to be inadequate and measures were taken for increasing it. Largely through the foresight of General O. M. Poe, then in charge of harbor and river improvements between Lake Erie and Lake Superior, the new work was undertaken on a liberal scale. A new channel was opened through the system of small lakes and straits known as the St. Mary's river, saving 11 miles in distance and practicable for navigation. Indeed, the extent of improvements in the connecting channels of the Great Lakes is much greater than is generally realized. Between Lakes Superior and Huron the aggregate length of new or deepened channels is 20.3 miles and between Lakes, Huron and Erie, 21.2 miles. The commerce between Lake Superior and

Lake Erie aggregating 35,000,000 tons per year passes through all of these, a total of 41.5 miles of artificial waterway. This is five miles greater than the length of restricted waterway to be made for the Panama canal. These improvements, included a deepening of the St. Mary's canal to 25 ft. and the building of a new lock, now known as the Poe lock, 800 ft. long and 100 ft. wide, with 20 to 22 ft. over the mitre sills. It was begun in 1888 and completed in 1896. It is the largest lock in existence and yet it had scarcely been finished before it was realized that it was really too small. When it was projected it was expected that four vessels could be locked through it



THE GREAT CANADIAN LOCK AT SAULT STE. MARIE.

at once. It had hardly been finished before it was seen that not more than one of the modern vessels could be locked through at one time, so rapid has been the increase in dimensions of the lake steamers.

The Poe lock was projected on the site occupied by the original locks built by Charles T. Harvey. General Poe felt some compunction over the necessity of destroying these old locks, for in his report to the government he writes :

"On the whole, the canal was a remarkable work for its time and purpose. The construction of the locks especially bore evidence of a master's hand in their design and execution, and it is no reflection on the engineer in charge that experience developed certain objectionable features. These locks are now being torn out to make room for a new one, and every step

in their destruction reveals the excellence of the workmanship, the honest character of the materials employed and the faithful compliance with the conditions of the contract under which they were built, not merely in the letter but in the spirit. All honor, then, to every man connected with their design and construction. They were long in advance of their day, and if commerce had not outgrown their dimensions they would have done good service for a century. I must confess to a feeling of great regret that it has become necessary to destroy these first locks. Inanimate though they were, they seemed to appeal to every sentiment of respect. They had never failed to respond to any demand within their capacity; they had contributed in a higher degree than any other one feature to the development of the



INDIANS FISHING IN THE RAPIDS.

country to the westward of them, and having done such good work are now to be obliterated in the interest of that very commerce they did so much to establish. The man who, knowing their history, can see them go without compunction is made of other stuff than I am, and if an engineer has no genuine love for his profession nor pride in the achievement of those who successfully apply its teachings to the best examples of his art."

When the Poe lock was building the Canadian government decided to have a canal of its own on their side of the river, and built it at a cost of about \$4,000,000. The locks are 900 ft. long, 60 ft. wide and 22 ft. deep. It was opened to navigation in 1895.

The first ship is now on the stocks on the Great Lakes which will be unable to pass through the Canadian canal. This is the steamer *William*

G. Mather, building for the Cleveland Cliffs Iron Company. Her beam is 60 ft., the width of the Canadian locks. Doubtless other vessels of similar or greater beam will follow rendering useless this magnificent structure as far as they are concerned and proving that it is impossible to adequately gauge the growth of the lake steamer even a few years ahead.

The lockage facilities of Sault Ste. Marie now comprise three important locks, each overcoming the entire difference of level at the rapids and each equipped with hydraulic or electrical machinery for all operations. Tentative plans are now being considered for a greater lock than ever on the American side.



THE APPROACH TO SAULT STE. MARIE CANAL.



MR. FRANCIS H. CLERGUE.

CHAPTER XXI

FRANCIS H. CLERGUE AND HIS INDUSTRIES

NOW comes a part of the story which shows with what ridiculous ease money and modern methods may accomplish in a few months what cost the hardy pioneers of the Marquette district infinite toil and hardship and years of unremunerative labor. In the summer of 1897, Benjamin Boyer, a prospector searching for gold in the Michipicoten country 125 miles north of the Sault, found an outcropping of hard hematite. As he had no funds with which to explore the deposit he went to Sault Ste. Marie and offered to point out the location to Mr. Francis H. Clergue for \$500, submitting at the same time samples of the ore. The chance was easily worth the sum asked. Diamond drills were later taken to the property and examinations made both in the land and through the ice of an adjacent lake, now known as Boyer lake, at whose bottom, 120 feet down, the ore was found to continue.

It was August, 1899, when it was decided that the iron must be utilized. A scow loaded to the guards with tools, supplies, horses, workmen and engineers was towed from Sault Ste. Marie to the perfectly landlocked bay of Michipicoten, and the engineers spent the first day in cutting a hole in the forest large enough for their tents. The ore lay twelve miles to the northward over as difficult a country to journey as one might possibly imagine. The conditions were similar to those which confronted the Cleveland and Jackson Iron Mining companies in 1849 when Peter White landed at Marquette. The ore of the Marquette range also lay fourteen miles from the lake over mountainous country. Probably no more illuminating picture of the advance of a half century could be presented than that which is afforded by the mere contrast of the development of the Marquette and Michipicoten ranges. The very next day after Clergue's engineers landed at Michipicoten Bay they began a survey to the mines and the laborers began the grade. They had a wilder country to work in than the Marquette pioneers because it was far more mountainous. Winter was coming on—it comes on early in the Lake Superior country—and every article needed,

from steam shovels to locomotives would have to be landed in the wilderness before winter put its seal upon the only avenue of communication open to them. Supplies not on the ground by November were not to be had at any cost till April. Neither food nor men could be obtained in the interim.

When Clergue's engineers began the task in August the forest loomed an apparently impenetrable wall before them; the hills rose almost straight from the water's edge and the entire country to the mine was a succession of gaping fissures, vast unheavals of rock and deep water courses. Eleven months later, or to be exact, on July 12, 1900, the first cars of ore passed down and out of the open mine over a track laid in 80-pound steel rails in cars of 50-tons capacity pulled by 110-ton locomotives. The ore was dumped into pockets of a dock that had been constructed during the winter in Michipicoten harbor, and from these pockets it slid by means of chutes into ships that had been purchased in Britain for the purpose. What a

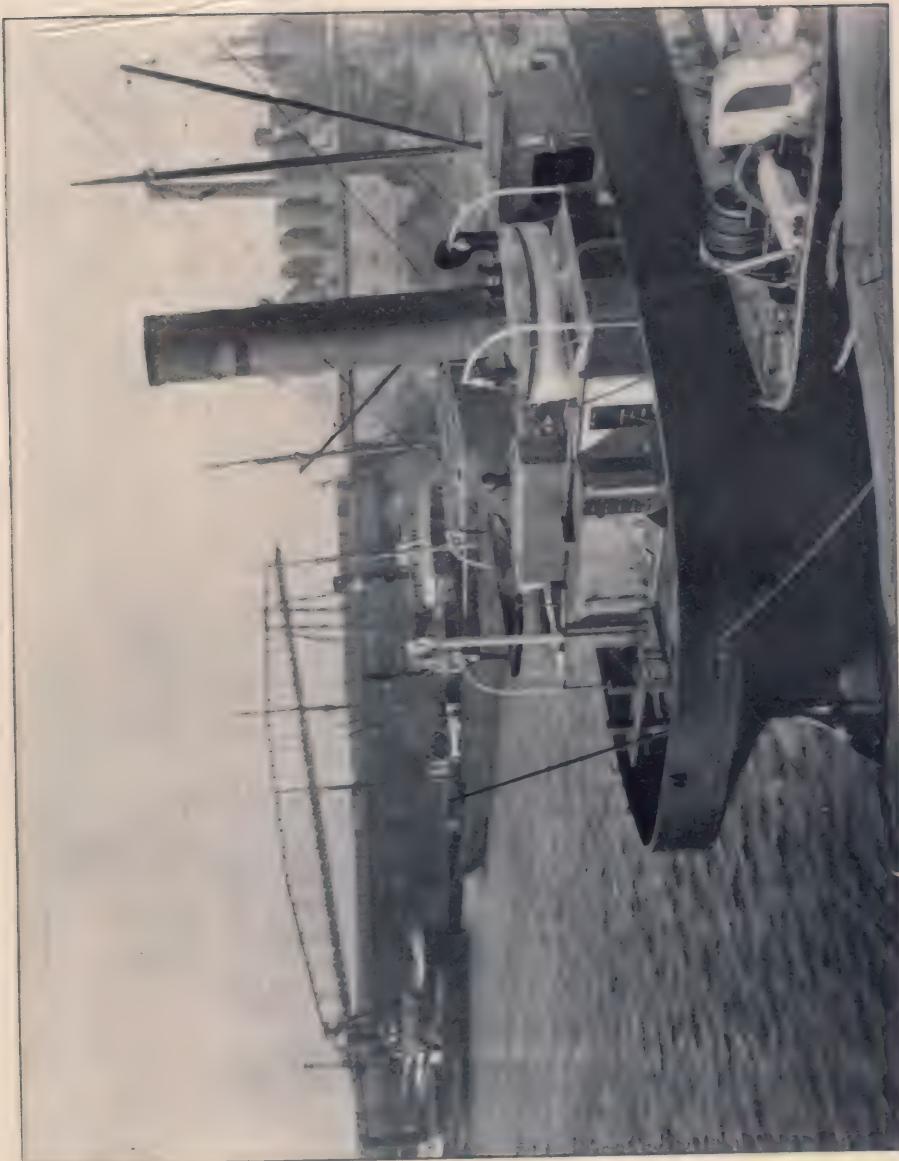


MICHIPICOTEN HARBOR.

contrast this furnishes to the little strap railroad of fifty years ago with its little cars of 4-tons capacity, laboriously pulled by mules. The Helen mine on the Michipicoten range, named after Mr. Clergue's sister, shipped about 50,000 tons during its first season; on the Marquette range they could not haul ore at all in the summer time owing to the roads and work as hard as they might with sleighs during the winter they could never get a stock pile on the docks by spring of more than 1,000 tons.

Francis H. Clergue is the great industrial captain of Sault Ste. Marie. His was the primal force in the development of the new Ontario and no one will ever be able to rob him of that distinction. In the management of the work which he established others may come and go and be forgotten, but Clergue will always be remembered as the bold and original man who founded an industrial empire in the Canadian wilderness. It was he who changed the countenance of Sault Ste. Marie and made its physical aspect so distinguished from what it was when Johnston wooed and won his bride.

GENERAL VIEW OF LAKE SUPERIOR CORPORATION'S WORKS.



Subtract Clergue and the face of things would not have materially altered since Johnston's time; add him, and a hundred enterprises including rolling mills, steel works, pulp mills and railways spring into being. It is regretted that only hurried mention can be made of him in this work. Clergue was about thirty-five years old when in 1893 he went west at the solicitation of some Philadelphia friends to search for some available water power that might be developed. At that time capital was being generally attracted to the tremendous possibilities of water power. Clergue visited a number of places and finally in his journey reached Sault Ste. Marie. He was immediately impressed with the possibilities of the place for water power development. The St. Mary's river had a fall of from 17 to 18 feet, and Lake Superior was its inexhaustible mill pond. On the Canadian side he found a



THE GROUND WOOD PULP MILL.

small and practically abandoned water power canal, the charter of which he had little difficulty in securing. The canal was rapidly placed in working order and in a short time the company had 20,000 horse power for sale. To Clergue's very great surprise nobody wanted any water power. The panic of 1893 was on, and capital would neither develop old enterprises nor invest in new ones. To save the improvement already made, Clergue turned his attention to utilizing the water power himself. It was clear that in a settlement as remote from the center of population as Sault Ste. Marie, an enterprise to be successful should proceed upon the principle of utilizing the raw materials at hand. It was natural, therefore, that Clergue should turn

his attention to the woods. He conceived the idea of making paper pulp. He was aided in this by previous training, because he had been identified with paper mills about his home in Maine as a young man. A pulp mill with a capacity of 100 tons a day was erected to turn out wood pulp. Wood pulp was then shipped wet to the paper factories, and in addition to the added cost of freight on 55 per cent of water, there was the loss caused by decomposition. This circumstance naturally limited the market, and the paper makers of the great Wisconsin district looked at the Sault Ste. Marie plant as a valuable adjunct to them in the way of furnishing raw material but of no particular importance to its own stockholders. In fact, during the hard times succeeding the panic of 1893, there was no active demand for pulp and as it had to be stored wet it spoiled on the company's hands. This



THE GREAT POWER CANAL ON THE MICHIGAN SIDE.

obstacle to winning a profit from the business set Clergue to thinking, and he turned the question over to the mechanical experts of the company to discover whether pulp could be manufactured dry. The result was the invention and installation of drying attachments which worked with perfect success. Instead of a market confined to a contiguous state or two Clergue found the whole pulp-consuming world at his feet. Dry pulp can be shipped any distance without loss and, in fact, the company was soon filling orders from Europe and the Orient. This industry has become extremely profitable owing largely to the natural advantages in manufacture, the enormous



VIEW SHOWING GENERAL OFFICE BUILDING, BROWN WOOD MILL, MACHINE SHOP, CHEMICAL LABORATORY, SULPHITE MILL,
REDUCTION WORKS AND STEEL PLANT IN DISTANCE.

and practically free supply of spruce wood and the cheap and excellent power furnished by Lake Superior. The pulp mill is one of the largest in America and its output is welcomed by the paper makers because it is always clean and white, the water from Lake Superior being one of the sweetest and clearest known and uniform all the year round. Moreover, the plant is operated on the principle of water power itself, which never stops. The mill is running night and day and uses about 14,000 horse power continually. Later a sulphite mill was erected for the manufacture of chemical pulp which is more valuable than ground pulp. The sulphite mill soon reached a capacity of 70 tons a day. Nickel mines were bought in the Sudbury district, 100 miles east of the Sault from which to obtain sulphur



HEAD GATES, POWER CANAL, MICHIGAN, LAKE SUPERIOR POWER CO.

and the Manitoulin & North Shore Railway was projected to reach it and other contiguous nickel deposits.

Clergue determined to preserve everything at Sault Ste. Marie that would be of historical interest. In buying the old Hudson Bay Co.'s station for a mill site he rebuilt the old block house upon it and used it as his home. The stone walls are those built by the Hudson Bay Co. more than fifty years ago. The old loop holes remain. The upper, or overhanging portion, made of logs, had to be rebuilt, but the original design has been preserved.

One of the greatest of Clergue's enterprises was the construction of the power canal on the Michigan side of the St. Mary's river. This canal is $2\frac{1}{3}$ miles long from the mouth of the intake above the rapids to the overflow far below the entrance to the ship canal. Like an immense river 220 feet

broad and deep enough to float the deepest vessel that sails the lakes, it serves to convert the city of Sault Ste. Marie into a city of two parts, with the island part now completely surrounded by water as the business section, and the balance of the city given over to the residences of its citizens. Its average width is 224 ft. and its depth 22 ft. This great canal in its course through the city traverses thirteen streets and is spanned by a number of fine steel bridges. At the lower end the canal widens out into the forebay, or millpond, for the purpose of securing sufficient frontage for the uniform distribution of the water to all of the turbines which are installed along the river face of the forebay in the power house. The river front of the forebay is closed by the power house, the duplicate of which cannot be found in



THE CHEMICAL LABORATORY AND SULPHITE PULP MILL AT SAULT STE. MARIE.

the United States, and which, more than any other structure, contributes to the turreted and embattled aspect which Sault Ste. Marie now presents in contrast to the days when existence there was dream-like and romantic. This power house is constructed of red sandstone, is over a quarter of a mile in length and 100 ft. wide, and is 125 ft. high. This massive structure rests upon a foundation of piles covered by log sills and caps and covered with Portland cement concrete to a depth of 3 ft. The substructure consists of 81 masonry walls 100 ft. long, 20 ft. high and 3 ft. thick. The stalls or pits thus formed, aside from supporting the building, serve to deliver the water

from the turbines into the river. The penstocks are all of uniform dimensions, 40 ft. long, 15 ft. wide and 20 ft. high. The dynamo floor occupies space on the same floor on the river side of the power house. The floor above is used for the machinery which converts the energy of the water into electrical power. The energy converted by this great canal is estimated at 40,000 H. P., which is developed by 320 turbines. Four of these turbines in pairs are placed in each penstock. All of the turbines are joined to one high shaft of pressed steel. Thus the power is produced to turn the dynamos awaiting on the floor above. The electrical equipment of the power house consists of eighty dynamos, and the power thus generated is transmitted by means of wires to the doors of the various plants purchasing it.

An interesting feature of the canal is the big movable dam constructed at the head of the canal to control the volume of water. This dam is made up of four leaves 50 ft. long and 28 ft. high, suspended from and operating between piers of solid masonry. When the water is entering the canal freely these leaves are suspended, and when it is desired to stop the flow, the leaves are lowered against a sill in the canal bed.

Naturally, no such engineering work as this, designed to relieve Lake Superior of 30,000 cu. ft. of water per second twenty-four hours a day, 365 days a year, would be permitted to be constructed without assurances that the interests of navigation, which are paramount, would be safeguarded in every way. The actual construction of this canal had proceeded well along towards completion before the attention of the Federal government was drawn to it. Before water was turned into the bed of the canal the subject was brought to the attention of the Rivers and Harbors Committee, at Washington, and Clergue had his engineers there present a plan to quiet all objections of the vessel interests. This plan involved the construction of compensating works at the head of the rapids just west of the International bridge. These works are designed to stop as much of the flow of the rapids as will be taken through the power canal. The compensating works consist of a monolithic concrete breakwater with steel gates, and in addition a submerged dam. When lowered the gates practically stop all flow of water and they can be raised to their full height in six minutes. The importance of these compensating works is not confined to the special purpose for which they were built. Leading engineers are of the opinion that they really present the first step towards conserving the level of the lakes, a subject which must eventually become of primary importance to the interests associated with the Great Lakes trade, since the level of the lower lakes has for several years been steadily declining.

Meanwhile the Algoma Central Railroad was being pushed steadily

north from the Sault to connect with the Canadian Pacific 200 miles away and with the ultimate intention of reaching Hudson Bay, 500 miles away. For the projection of this railway, together with that of the Manitoulin & North Shore Ry., the company received great grants of land and practically a million dollars in money from the Dominion government. A grant of 1,650,000 acres was given in consideration of projecting the Algoma Central to tap the Canadian Pacific trunk line. For the stretch of 300 miles beyond the junction of the Canadian Pacific, the Dominion government offered a grant of 3,000,000 acres of land. This was indeed an empire in itself. These



THE BLAST FURNACES AT SAULT STE. MARIE.

grants from the government include the mineral and timber rights and constitute assets of enormous potentiality. The timber on the land is largely spruce, and as spruce is indispensable for paper making and is becoming somewhat scarce elsewhere the value of this single asset is great. There are also splendid growths of maple, birch and other hardwood adaptable for the manufacture of fine furniture. Clergue put into the field hundreds of expert mineralogists, geologists and woodsmen, locating bodies of timber

and favorable mineral bearing lands and verifying and correcting previous information from all sources.

A fine laboratory was established at the Sault in which the company tested any minerals brought to it from any part of the country near its operations. Twelve chemists were constantly employed in analyses and experimentation. The completeness of the technical library in connection with the laboratory may be indicated when it is said that one hundred technical publications, monthly and weekly, were received, were repaged consecutively, completely indexed, and bound.

Correlation is one of the significant characteristics of Clergue's mental make-up, and having acquired iron mines it was natural that he should desire a blast furnace; and having a blast furnace, steel works would naturally follow; and as the Dominion was extending its railways rapidly, it was inevitable that a rail mill should be added to meet the demand. Clergue established at Sault Ste. Marie a Bessemer steel plant and rail mill under the corporate name of the Algoma Steel Company. The entire mechanical equipment of this plant was installed and was practically ready to run at the end of 1901, but owing to delay on the part of contractors for the structural work and the lack of girders and columns to support the cranes without which the mill could not be operated, it was impossible to put the plant in operation until 1902. The starting of this mill was an event of no little importance in the history of Canada, as it marked the rolling of the first rail in the Dominion of Canada of steel made from Canada pig iron, smelted from Ontario iron ore. The steel was unfortunately not of Bessemer quality. Two furnaces, one for the use of charcoal and the other for coke were under construction, and the steel works for a short while during 1902 ran on purchased pig iron. There were difficulties, however, in the way of running a steel works with purchased pig iron in insufficient supply, and the company finally closed the works until its own furnaces could be put into blast. Moreover, the bounty which the Canadian government was paying could only be earned on steel as the pig iron bounty was paid only on pig iron made from ore mined within the Dominion.

The steel works and rail mill, however, are among the finest in the world. The construction of the plant is such that material can be handled at a minimum labor cost and an unusually large output per man is thus obtainable. The availability of electric power at much lower cost than steam is one of the great advantages enjoyed by this plant. Certainly no plant in the world had the advantage of such cheap power as this with Lake Superior harnessed in a canal at its doors. Adjacent to the blast furnaces and steel works, a battery of twenty by-product retorts was constructed with all

the necessary equipment for recovering the products of distillation. In the operation of the charcoal retorts the recovery of the waste products—acetate of lime and wood alcohol—were practically made to pay the cost of making the charcoal. In addition to these by-products, bee-hive kilns were built on points of the Algoma Central Railway where supplies of hard wood could be obtained to the greatest advantage.

Clergue attacked his various problems with the utmost energy. Lake Boyer, on the shore of which the Helen mine is located, he caused to be drained and developed the property in such manner as to make it possible to win the largest amount of ore in the shortest space of time. Shafts were



GENERAL VIEW OF BLAST FURNACES AND WATER APPROACH.

sunk and at different levels workings were extended into the solid body of ore. A second deposit now known as the Josephine was discovered ten miles beyond the Helen mine, and the railway was immediately extended to it. There were none of the troublesome questions of finance and equipment to be met with that had bothered the Marquette pioneers. The means were at hand and the railway was constructed within a few months.

In the Sudbury region work was steadily pushed forward on the nickel property. Large amounts of nickel ore were raised both from the Gertrude and Elsie mines. The first smelter at the Gertrude mine was put into operation in June, 1902.

Sawmills and veneer mills were established to utilize the hardwood

timber on the company's grants of land. Only those parts of hardwood which could not be worked up into fine furniture were used in the charcoal kilns. The veneer mill, the only one in Canada, had sold its product for months ahead to makers of fine furniture and from its own natural advantages, cheap raw material and cheap power, was capable of earning an enormous percentage upon its own investment.

An electric light plant was constructed at Sault Ste. Marie to light the towns. Street railways were built and water works established, the subsidiary companies deriving power from the canal.

A Hulett automatic unloader, electrically driven, was installed on the dock at Sault Ste. Marie to take ore from the vessels.

With ore from its own mines, brought in its own ships, fuel from its own lands carried on its own railway, with a large government bounty, with the cheapest known power on earth and an abundant market, the Dominion government at that time being actively engaged in the projection of new railways and with the necessity for the renewal of some 18,000 miles of railroad then existing, Clergue had reason to look forward with confidence to the future of his business.

Clergue went to the Sault in 1894. He found it a primitive settlement with no industries whatever. He left it eight years later with machine shops and foundries splendidly equipped, blast furnaces with the most modern and improved devices for unloading and charging the stack, with rail mills whose economy of operation is the delight of the practiced engineer, with saw and veneer mills, sulphur reduction works, with car shops, brick yards, street railways, ferry lines, freight and passenger steamers, with the Algoma Central & Hudson Bay Railroad in operation for 106 miles and graded for 99 more, with the Manitoulin & North Shore Railway in operation for fifteen miles, with iron ore and nickel ore mines in complete development, with great power canals and power houses in complete operation, and with numerous subsidiary enterprises springing up around him.

The great Michigan power canal had taken six years time and had cost \$6,500,000: the blast furnaces and steel mills had cost \$4,500,000; the railways and ships had cost \$9,500,000; the pulp mills \$1,000,000; the mining properties \$1,000,000; the ferro-nickel works \$500,000, and other sums making the aggregate cash investment approximate \$25,000,000.

Clergue's ability in organizing was so great and his faith in the natural resources of Canada so steadfast that he won completely the confidence of the Dominion government. No man had greater influence at Ottawa than Clergue and he got all that he ever asked for. He agreed to settle annually 1,000 immigrants in the wilderness of Algoma and he had 2,000 men chop-

ping wood for him continually in the country north of Sault Ste. Marie. He had molded a group of industries into a beautiful system, one feeding the other, so that no profit in the various processes of manufacture escaped. The whole plan, even if extravagantly executed, was nevertheless well thought out and will yet prove the wisdom of its founder. Disaster fell upon Clergue at the very moment when he had least cause to expect it. The last plant to complete the group of industries had practically been completed when the financial crash was precipitated. Had he been granted a little more time, had capital to operate been given as freely as it was to establish, Clergue could doubtless have got the group working as a unit, but during his whole connection with it the company cannot be said to have



THE RAIL MILL AT SAULT STE. MARIE.

been a going concern at all, since his whole energies were consumed in the construction of the correlated plants. He never saw them in operation as a unit though it is as a unit that they must be operated to produce the greatest profit, since one is dependent upon the other. Clergue was practically superceded in the management of the property in the fall of 1902.

Clergue's habit of thought is not that of the ordinary promoter, who in projecting enterprises invariably seeks a quick return in profits. Clergue pushed his enterprises from the other direction. He believed in solidity as the primal requisite. The consequence is that the works at the Sault are built to remain. They are as impregnable as fortifications, and fifty years hence their construction will stand for tens of thousands of dollars per annum in the profit and loss account. In their turreted, castellated and em-

battled appearance they remind one of the architecture of mediæval Europe.

Expectation of profits on the Clergue enterprises at the Sault have been deferred, it is true, but they have never been disproved. There may have been and probably were grave initial errors in the construction of some of the plants. Money was doubtless spent freely in the establishment of new works before the old ones were brought to a paying basis, which eventually made their finances hopelessly inadequate to the complete and successful operation of the plants and finally led to their sale for a fraction of their original cost.

But the assets, non-existent eight years ago, that Clergue has left are vast, not the least of which are the 1,800,000 acres of land already earned, covered with splendid forests of pine, spruce, maple, birch and oak, which when cleared is well adapted for farming, and much of it, moreover, mineralized with many deposits of copper, iron and gold known to exist; then again, there is the absolute control of the water power of Lake Superior, since the company controls the riparian rights above and below the rapids. These are assets the potentiality of which for gathering riches are, as Dr. Johnson would say, "beyond the dreams of avarice."

CHAPTER XXII.

PETER WHITE'S MONUMENT IS PRESQUE ISLE.

ONE of the most beautiful edifices in Marquette is the chapel built of brown stone, which adjoins St. Paul's Cathedral. It was built by Peter White in memory of his son Morgan. This chapel, which is known as the Morgan Memorial Chapel, has never been consecrated, as it is the wish of Peter White that it should be available at all times for the use of the guilds for entertainments, both musical and dramatic. Mr. White is personally an Episcopalian, but his purse from his slenderest days has been undenominational. He has assisted in the establishment of every church in Marquette—Methodist, Presbyterian, Roman Catholic, Lutheran and others. He was instrumental, too, in founding St. Luke's hospital.

Many things has Peter White done for the upper peninsula of Michigan; many things doubtless will he yet do. Marquette in return is speaking of a monument to him, but his real monument is his own handiwork and its crowning figure is Presque Isle. This is a tract of land densely wooded, 328 acres in extent, and is, as its name signifies, "almost an island." It lies a little to the west of Marquette harbor. It has a rock-bound shore which lends itself to rugged and picturesque effects. Some of the formations, particularly Arch rock, are most unique.

"What a park it would make," soliloquized Peter White.

But alas, the government had reserved Presque Isle for light-house purposes and government is inclined to be set in its ways. It presents the most frowning aspect to any suggestion of change from its customary method of doing things. It has a special and particular horror of establishing a precedent. The light-house board, having established a station on Presque Isle, that island was forever dedicated, as far as the light-house board was concerned, to that purpose. The light-house board would regard any suggestion that it be used as a park as little short of anarchy. Having been once a light-house station it could never be anything else—things go on the same year in and year out in Washington. Peter White could see the rock-ribbed, green-topped island from his study.

"Moffatt," said he, "why can't we have that as a park?"

"Moffatt—he was the peninsula's congressman—was speechless at the suggestion. It was an involuntary reflection of the attitude of the light-house board on his part. He knew that that was the way the light-house board would act when the subject was broached to it—stiffen and freeze at once.

"It can't be done," said Moffatt.

Peter White packed his grip and went to Washington and saw the members of the committee on public lands of the house. They were all very glad to see him—the six Democrats and seven Republicans—but they were very sorry indeed that nothing could be done for him.

"Can't do it," said the six Democrats and seven Republicans in chorus.

"Will you report the bill favorably if the senate passes it?" asked Peter White.

As there was no hope in the minds of the committee that the senate would pass it, they unanimously agreed to this proposition. Peter White went into Senator Tom Palmer's room in the senate wing of the capitol. Palmer knew him of old and was genuinely glad to see him. The story of Peter White's life was an old one to Palmer, but the incidents in it were ever new. He told what he wanted as simply as he could.

"I am going to get a couple of senators in here," said Palmer, "and you repeat to them just what you have told me."

Palmer went out and accosted two or three senators. Peter related his unselfish mission to them. The story wasn't much, but the man back of the story loomed up a gigantic figure before them. It wasn't what he said about the beauties of the island that moved them; it was the knowledge that here was an original character that had hewed a city out of a wilderness; that had cheerfully submitted to untold privation and hardship in order to give the iron frontier the benefit of a civilized life; that had time and again plunged into a desolate waste in the dead of winter to snatch a few comforts for his fellow beings. It wasn't what he said that had carried them away; it was the force of forty years of incessant toil and manly living. Senators straggled in by twos and fours and met the northern stranger. In the face of such service as he had rendered to the country, Presque Isle seemed to them a pretty small recompense. Time-honored practices and fear of precedents were flung aside, and the bill giving Presque Isle to the city of Marquette for park purposes was passed at once. The breath of the committee on public lands of the house was nearly taken away, but the members were true to their promise. They recommended the bill and it passed the house

promptly. Peter White got the president to sign it and he returned to Marquette with a draft of it in his pocket.

The bill contained the natural provision that the park was to be accepted by the council of Marquette and maintained by the city. The usual obstructionist was in the council. He made a fiery speech in which he declared that the park would benefit only the rich and that the citizens of Marquette would be forever saddled with the expense of keeping the driveways in condition for those who rode in carriages. The workingman would get no pleasure from it whatever. He pictured the oppressive nature of the burden so zealously that the council actually decided to reject the gift. At the next meeting Peter White appeared before them. He was sorely vexed that the city was to be deprived of so magnificent a pleasure ground through the short-sighted policy of a council.

"I understand, gentlemen," said he, "that your only objection to accepting this park is the cost of its maintenance."

"Yes, sir," said the spokesman.

"I will not argue with you tonight how mistaken you are," said Peter White, "in declining a gift which will eventually be of the greatest boon to the workingman and which will provide an eternal pleasure ground for your children and your children's children. I will, however, meet the only objection which you have raised. If you will accept the park I will personally pay the cost of its improvement and maintenance during the next five years."

The park was accepted instantly. Usually when men devote great sums of money to improvements of this character an ulterior motive is likely to obtain. They may hold contiguous property which will be greatly improved thereby. But Peter White held no property contiguous to Presque Isle. There is no available property contiguous to Presque Isle. It is all unclaimed. The first thing that Peter White had to do was to build a roadway a mile or more long across this unclaimed stretch. Water to a depth of a foot or two had to be filled in and the roadway built upon it. That cost \$30,000. The improvement and maintenance of the park cost \$35,000 in addition, a generous and unselfish contribution. The effect, however, has been to make the whole city of Marquette a park. Presque Isle is a lovely spot today and has an extensive and well-kept zoo upon it.

In 1893 Peter White was appointed one of the World's Fair commissioners, and to his energy is due the extraordinary mining exhibit that Michigan made at the fair. Tons of metal were transported to the fair, and

there was reproduced out of the material strata showing the formation of mineral deposits in the earth.

As an illustration of how little things may effect the current of one's life, the visit of Judge Matthews to Marquette is given as evidence. The Indians were adepts in making models of birch bark canoes, but the gradual elimination of the Indian has eliminated also their handiwork. Birch bark canoes are becoming very scarce but the judge was anxious to obtain one. Seeing a beautiful little model of one in the First National Bank, he asked Peter White where he might get one.

"You may have this one," said Mr. White.

"I do not want that one," answered the judge. "Where will you get another?"

"The Indians may as well make me one," replied Mr. White. "I've got to support them anyhow."

The judge took the model and the incident might have been regarded as closed. But later it became necessary for the judge to appoint a master in chancery for the Pewabic Copper Co., and the parties to the suit were unable to agree upon a proper person to act.

"If you fail to reach any conclusion I have a man in mind," said the judge. "I don't know much about him except that he gave me this birch bark canoe, and I believe that he can be trusted. He is Peter White, of Marquette."

The parties agreed to the selection and Peter White was appointed master in chancery for the Pewabic Copper Co. He later sold the Pewabic mine to Mason & Smith, of Boston, for \$710,000.

When the state of Wisconsin placed a marble statue to Father Marquette in the rotunda of the capitol at Washington, A. E. Archambeau, president of the St. Jean Baptiste society, suggested to Peter White that it would be fitting to have a bronze replica made for the city of Marquette. Mr. White heartily approved of it and undertook the labor of getting the necessary subscriptions. The statue was unveiled at Marquette, July 15, 1897, with appropriate ceremonies, Hon. Don M. Dickinson making the principal speech. Later Peter White put an oil painting of Don M. Dickinson in the court house of the county which is named after Mr. Dickinson, in the upper peninsula.

When the Cleveland company celebrated the semi-centennial of its incorporation in 1900, it was Peter White who made the chief address. He recounted the development of the company from its earliest days; of how

it was the only company that was prepared to ship any ore through the canal when it was finished in 1855, and how it had continually shipped ore through since, more than 1,000,000 tons some years, and how it had extended its operations into the various collateral enterprises, such as the making of a fine grade of charcoal pig iron, and had become the greatest of all the independent companies in the peninsula—meaning, of course, by independent companies those iron mining companies which are not affiliated through ownership with steel-making concerns. For this is a form of ownership which has latterly swallowed a number of individual undertakings, so that today the steel-making companies are the largest owners of the iron mines of the Lake Superior country, and the largest owners of lake vessels as well. He told also



PETER WHITE DELIVERING THE ADDRESS AT THE CLEVELAND CO.'S SEMI-CENTENNIAL

of the struggles of the pioneers, of which he was the participant, and of which he is the living witness—and it was very, very interesting indeed.

The University of Michigan conferred upon Peter White the title of LL. D. in 1900, which caused Mr. George H. Russel, of Detroit, to write to him as follows:

"I have some misgivings and fear that the new title which comes to you will bring with it such added dignity that you must necessarily refrain from being the same old Peter White and give up your good friend stories and other things and put on, as becomes a learned doctor of the law, a black stock, silk hat and cotton gloves."

In 1902 the University of Michigan made Peter White one of its regents.

No man has greater influence in Washington than Peter White; nor is any man more welcome to the senators and representatives. He has kept them up half the night with his stories. General Grosvenor relates an incident at a dinner party where he and several other representatives attended with Peter White, and they were surprised to discover after listening to a number of his French stories, that it was two o'clock in the morning. H. C. Potter says that he never knew a man who could tell a story that was funny enough to stop a railroad train until he met Peter White. Whether he is entertaining senators and representatives or stretching his legs under the mahogany of the president of the United States at the white house, which he frequently visits, he is not telling stories for the story's sake alone. There is always some ulterior purpose, some kind intention, some unselfish act for the betterment of the upper peninsula.

It has been a labor of love on his part to cherish and develop the little library which he started in 1872. It grew gradually, new quarters being provided as the expanse of the library exceeded the limits of the old one, until he set aside a portion of his bank building for the use of the library, and after decorating it, offering its use free to the city. But the library passed from larger to larger quarters until it became apparent that it would have a home of its own. Through the generosity of a few leading citizens, headed by Peter White, a new library building was erected and dedicated to the public in September, 1904. The new structure, which is known as the Peter White Library, is an imposing building of Bedford limestone. It was erected at a cost of \$47,000, exclusive of the land. The Bedford limestone is white and makes a striking building with the red tile roof. The interior is of marble and weathered oak and the whole effect is beautiful. It is expected that the library will answer the requirements of Marquette for a great many years. The city of Marquette placed a marble bust of Peter White in the library in honor of the founder. Some years before when Andrew Carnegie had called upon Peter White during a visit to the iron mines, Peter had suggested to him the founding of a library in Marquette, and offered to surrender the name of Peter White if he would establish one. But Carnegie, willing as he is to give libraries to deserving communities, would not listen to it. He felt that Marquette belonged to Peter White and that she had been well cared for in that particular respect by him.

There has been but lately established at Marquette its new normal school for the upper peninsula. The buildings are as yet but three in number, comprising the main normal school building, a dormitory and a science hall. The

science hall is known at The Peter White Hall of Science, a just and graceful recognition of the continued, unwearied and practical benefits this rare, and let us hope typical American citizen, has planned and secured for the growth and culture of Marquette. This honor came to Peter White unsought. He had given a thousand dollars a year for a period of five years to the art department of the normal school, but Principal D. B. Waldo announced that the selection of a name for the science hall had not been dictated by any monetary consideration. When this science hall was dedicated men from all parts of the country came to attend. They came, not to dedicate a new branch of an educational system, but to see an honor done to Peter White. "That is all I came for," said Don M. Dickinson, bluntly.



PETER WHITE PUBLIC LIBRARY.

Dickinson had suggested the year before that there should be placed at the entrance of Presque Isle, where it would be seen of all men entering upon that beautiful spot, a colossal bronze statue of Peter White. "Let us have the sturdy figure," said he, "upon the sturdy legs with a kindly face in colossal brass and bronze at the entrance of the park."

It was to this dedication that Dr. H. C. Potter wrote that there had long been a conviction in his mind that if there had been no Peter White there would have been no upper peninsula.

But it was left to Dr. Wm. H. Drummond of Montreal, a life long friend, to say the rare and proper thing, to limn him in a line: "Strong in

his gentleness, wise in his simplicity, practical in his enthusiasm, pioneer in an age of pioneers, the man whom children on the street know only as Peter White, stands today, it seems to me, the very highest ideal of that civilization of which the American people are so proud. When such men build the foundations, easy it is to raise the superstructure, and the trail Peter White has cut through life is blessed by acts of private charity and deeds of public devotion that will serve as a guide to those who follow in the foot steps of a truly great, and above all, good man." Drummond dedicated Johnny Courteau to Peter White with the exquisite lines from *The Merchant of Venice*: "The dearest friend to me, the kindest man, the best condition'd and un-wearied spirit in doing courtesies."

During the last seven years Peter White has been the president of the Mackinac Island State Park Commission. Under his management this island has been literally transformed. It is probably without exception the most beautiful spot on the chain of lakes, and the most liberal policy dominates its management. The little village that was there when Peter White first visited it in 1845 is there yet, quaint, curious and insular; but all else is changed. It is a perfect fairyland now and is the summer resort of the north.

Does anyone imagine that there would have been any celebration at Sault Ste. Marie in August 1905 to commemorate the fiftieth anniversary of the opening of the first canal which made navigation possible between Lake Superior and the lower lakes, had it not been for Peter White? There would not. It was an opportunity to be seized upon, but the chief beneficiaries of the iron companies and vessel interests were too busy with their own affairs to give it thought. But Peter White had been in the Lake Superior country before the canal and he has been there since. He knew what one would be without the other. He knew also that a celebration was the very thing to bring the commercial importance of Sault Ste. Marie before congress and the nation to the end that the canal might continually be developed. He began his plans for the celebration as early as 1902. This untiring and unselfish soul went to Washington and saw congress about it. He told congress that Sault Ste. Marie belongs to the nation, and that it was the iron in the Lake Superior hills that was making the industrial blood of the country run a healthy red. In twos, in four and in committees he told the senators and representatives about it, and he even told the president, producing his figures to prove the statement. Day after day he paced the corridor leading from the senate to the house and was finally promised an appropriation if he would bring the subject to the attention of congress at the next session.

Early in 1905 he went to Washington to have that promise kept, but the cry of economy was there ahead of him. The senators would not listen to an appropriation. Peter White was disappointed but not defeated.

There was a little dinner one night, just a friendly, informal affair in the senate restaurant, that was attended by Speaker Cannon, Senator Burrows and Congressman Hemenway, chairman of the conference committee, and others. Peter White, who dearly loves the French-Canadian character, was a guest at this dinner, and he told a great many stories, both humorous and pathetic of life in the peninsula, and once in a while he let a remark drop to show what a tremendously solemn thing the iron business of the United States has become, with its magnitude and its responsibilities, and how some day in the near future another lock would be needed at Sault Ste. Marie to facilitate the feeding to the iron trade of its raw material, iron ore.

"I guess we better give Peter White an appropriation," said Speaker Cannon.

"I'll not take less than \$10,000," said Peter White.

"Well," said Hemenway, who was drafting the general deficiency bill, "if you'll get the signatures of every Michigan senator and representative that Michigan wants this appropriation, we will put it in the bill."

Get them. Peter White had them. The victory was already his. It was nearly midnight of the concluding day of the session, but in a twinkling Peter White returned with the necessary signatures and a clause was inserted in the bill and passed, but the ink had scarcely dried upon the measure when the clock struck twelve and congress had adjourned for the session.

With his bill in his hand Peter White went to Lansing. He has privileges at Lansing because he has earned them. The legislature went into open session to hear him. He told his story simply, told of the scope of Michigan's great contribution to the material welfare of the country; told what congress had done and asked that Michigan participate in the proposed celebration and take charge of it. He did not tell them that he had spent freely of his own time and money to bring it about. But the legislature saw it, appreciated it and appropriated \$15,000. The governor of Michigan appointed Peter White president of the commission to conduct the celebration.

Then Peter White appointed Charles T. Harvey, who built the first canal, chief marshal of the celebration, a fitting, thoughtful and sensible thing to do, and then he went among his friends, the iron companies, and asked them to contribute to its success. They all did so with pleasure, giving not only money but offering ships as well.

The Sault Ste. Marie Canal Semi-Centennial celebration is the latest

triumph of Peter White. It focused the attention of the country upon this canal which, while geographically remote, is commercially the most important artificial waterway in the world. The dissemination of general knowledge among the people upon this point will do more than anything else to inspire a liberal policy by the national government towards the waterways of the great lakes. Approximately \$50,000,000 has been spent on lake channels by the government, but the iron ore alone which has been transported along them has already exceeded \$1,000,000,000 in value. Since the canal was built 354,247,159 tons of freight of various kinds have passed through it, of which 253,002,697 tons have been the movement of the past ten years. It is common for 5,000,000 tons of freight to pass through in a single month. In June of the present year 6,057,491 tons passed through, which is the heaviest month's movement to date.

Peter White returned to Marquette to face the greatest sorrow he has ever known—the death of his wife, who for forty-eight years had been his constant companion and helpmate, and who had presided with infinite tact and graciousness over an ideal home. He bore this great affliction with noble fortitude and resignation as he had borne before the loss of five of his children, whose fingers were tightly clutched on the strings that lead to the heart.

And thus we bring our hero down to the present day, full of years and of honors and of sorrow, too, for that is the heritage of life.

EPILOGUE.

A REVIEW of Peter White's life would be a review of the history of the Lake Superior country. His life compasses all that is modern in the history of that princely territory—the richest in a mineral sense that has ever been discovered. The only part of it which his life does not embrace is the pre-industrial period.* What antedates him is largely legend or frag-

*The following excellent poem, illustrating the popular impression of the longevity of Peter White in the peninsula appeared in the Detroit Free Press, Sept. 27, 1897.

You know one man call Petare Wite
What live up by Marquette,
Was born four hundred year ago
An I'm glad she hain't daid yet.

Perhaps you tink dat one big lie,
But if you doan' b'lieve true,
She's live for last two t'ousand year
I'm goin' prove to you.

Deys got a Sunday school up dere,
An' one day not long ago
Ze teachare hask em question
To see how much dey no.

"Who's was the one dat run ahead,
Say, 'Mak' road and mak' 'em strait'?
Come, hanser me dat question now,
Doan' keep me long to wait."

Jus' one in hinfant class what no,
She was six year hole and bright.
Now, I always s'pose 'twas Jean Baptiste—
But she say "Petare Wite."

An' now I've prove ze haige to you,
I'm goin' on wid my sto'y,
It's more about dat Petare Wite,
An' more as to his glory.

Long time she was call Pierre Le Blanc,
'Bout two tree hundred year
Before 'twas change to Petare Wite,
By dose English peeps 'roun' here.

mentary exploration, and even of this history he has gathered as much as he could and has preserved it in the imperishable pigment of prose. But it is because he has lived throughout the entire industrial era that his life has great historic value. The changes since he ripped the sod off the iron ore of the Cleveland mine in 1849 have been vast. That blow altered the face of a continent. Instead of the stubborn and rebellious mule hauling a four-ton car on a little strap railroad there is now plying to this self-same range some of the most powerful locomotives ever constructed, and

One day she walk down by ze rocks,
 'Bout sixteen sixty-four,
 An' scratch hees haid and wink hees hyc
 At lit' speck far out from shore.

Ver soon dat lit' speck was a canoe,
 Bimeby it came to shore,
 A man jump out, strange French man,
 What she never saw before.

An' dat man say "Bon jour, my fren',
 I doan' know you, and yet
 I guess your name is Pierre Le Blanc—
 Mai name ees Pere Marquette.

"I hear 'bout you from mai grand-pere,
 Dat you could not be beat,
 An' I tought I'd stop and get acquaint'
 So two good mans could meet."

An' Petare say, "Dat's very good,
 I'll tell you what I'll do—
 I'll build a town on dis here spot
 An' call it after you."

An' Petare tak' him to hees house,
 An' fill him to hees jaw
 Wid everything she had was nice,
 Champagne and poisson blanc.

Dat good pries' stay for two, tree week,
 An' den he say "Good-bye,"
 Wile great big tear run down hees cheek,
 Two, tree stan' on hees hye.

An' den he jump in hees canoe
 An' shove off from ze bank,
 An' look up to ze sky and say,
 "God bless you, Pierre Le Blanc."

An' Petare built dat city.
 An' did more' as dat, you bet,
 He also built one monument
 For hees young fren', Pere Marquette.

the freight traffic along the old road bed is among the heaviest in the world. Instead of a 100-ton schooner receiving its cargo of ore upon a gang plank there is a 10,000-ton steamer being loaded by means of a trestle dock with its pockets and chutes in far less time than it took to load the little schooner—and all coming from the self-same deposits. To be exact, the great steamer Augustus B. Wolvin has loaded 10,245 gross tons of ore at the Great Northern docks, Allouez Bay, in 89 minutes. Nine thousand tons of this load were put on in 34 minutes and the Wolvin was at dock a total period of only 180 minutes, which included shifting. Instead of the old strap railroad at the Portage and Sheldon McKnight and his old gray horse, there is the great Sault Ste. Marie canal, whose traffic is more than three times as great as that of Suez, the ungated highway to nations that were old before the dawn of history. Instead of the painful loading and unloading of cars by human labor there is the steam shovel, the drop bottom car and the great unloading machines with automatic buckets. Instead of an annual output of 1,449 tons there is an average yearly output of over 20,000,000 tons, with the probability of the output reaching 30,000,000 tons during the present year; instead of a freight rate of from \$3 to \$6.25 per ton from Marquette to Ohio ports as it was in 1866, there is the present trip to trip rate of 75 cents and a contract rate over a term of years of even less than that figure. The Ocean, the Fur Trader, the Algonquin, the Baltimore and the Mineral Rock, have given way to an ore-bearing fleet of steamers, rivaling in dimensions and carrying capacity the great Atlantic liners. Witness the ore-laden fleet as it passes out of Duluth harbor; follow it a little down the lake until it joins the squadron emerging from Two Harbors to be joined by a third defiling from Ashland. Eastward they sweep, uniting with the old guard at Marquette, bearing down upon the Sault in a mighty throng, staggering the imagination to believe that they are plying water that knew only the birch bark canoe scarcely half a century ago. Ask what genii is it that has rubbed Aladdin's lamp to such purpose, and the answer is Iron. Onward they sweep and debouching into Lake Huron join another detachment coming through the Straits of Mackinaw from Lake Michigan. Down Lake Huron they continue, a vast and evergrowing procession, closing in at Port Huron for the passage of the Straits. Then the great parade, moving steadily onward, enters the Detroit river. It is no state occasion that one beholds, but the common business of the day. Never-ending, never-stopping like shuttlecocks in some great machine they ply, making up the most impressive commercial panorama that the earth can show. Fifty million tons are passing in review, 30,000,000

of it being iron ore to be worked up by countless hands to do service to mankind in innumerable ways.

Thirty millions of it to furnish employment to a dozen railways that lead from Lake Erie ports to the furnaces of Ohio and Pennsylvania. Day and night, month after month, all the year round, along the up-grade from Cleveland, giant locomotives at front and rear, pulling, pushing, puffing, may be seen moving heavy ore trains, the locomotives yearly growing higher in the air and the cars growing longer and longer as though both were swelling with the strain of keeping up with the torrent of ore that never ceases and is ever growing. The scene is repeated at Fairport, Ashtabula, Conneaut, Erie, Buffalo, Toledo, Huron, Sandusky and Lorain. It has been going on for fifty years, this toil of Titan, this transfer of red, brown, blue and purple earth from the Lake Superior mines to the hungry and roaring furnaces of the Ohio and Pennsylvania valleys. When will it end? Its profusion and its cheapness of transit have contributed more than anything else to the industrial success of this country. It has made its presence felt in every form and condition of existence. Truly, as Peter White said in Washington, the iron trade of the United States is a mighty solemn fact. It has lifted a people to the very apex of industrial supremacy among nations. How long will it maintain them there? Within the space of fifty years it has distributed the blessings of wealth among a greater number of individual families in the United States than any other nation can boast of though it be a thousand years old. How long is this beneficence to continue?

'Tis a far cry from the six tons of bloom iron per day that were made in the Jackson forge in 1849 to the 18,009,252 tons of pig iron that were produced in this country in 1903. Peter White, who labored with the iron makers in the beginning, the day of small things, saw a single American company, working with Lake Superior ore exclusively, produce last year more steel than was made in the whole of Great Britain. The United States Steel Corporation produced last year 8,406,378 tons of steel, against 5,134,101 tons in Great Britain, exclusive of castings. Peter White's six barrels have grown indeed. He saw this same company ship 16,500,000 tons of ore from the Lake Superior country in a single season. What a contrast to the sleigh that held a single ton when he was a boy, to the time when 18 tons was considered a big day's haul, when a stock pile of 1,000 tons was all that could be accumulated over winter.

What has this man seen? He wrote the bill of lading for one of the earliest, if not the first, shipments of ore to leave the Lake Superior country.

He saw it carried away in a little schooner to be portaged over the falls and to be loaded again upon equally tiny vessels. He saw it carried in sailing vessels because steamers were largely at that time passenger craft and such a thing as a steamer for bulk freight purposes exclusively was not even dreamed of. It was a period of unlighted channels and navigation was therefore impossible by night. He saw these little sailing craft delayed by current and unfavorable winds in the rivers and he saw the old steamer *Gore*, an old-fashioned British-built paddle craft, lash a sailing vessel on each side of her and carry them through the rivers.

He saw this system of towing speedily abandoned in favor of the astern towing by the handier propeller and he saw the *Hamilton Morton*, *Peck Castle* and *John Martin* built for this purpose. Then the tug *Champion* followed with double engines and power sufficient to tow seven or eight sailing vessels. Occasionally an increasing north wind would compel the *Champion* to release one of her tows so as to make headway with the rest against the current and then great would be the profanity of the skipper so abandoned, a cyclone being but a summer's breeze to his vast and awful bluster. In 1869 he saw the steamer *R. J. Hackett* built to carry the ore of the *Jackson* mine. She was the first steamer to be built exclusively for the ore trade. She was the first to be built with machinery aft with a continuous hold and hatches spaced 24-ft. centers. The next year her consort, the *Forest City*, was constructed. They are the parents of a very numerous and much improved family. This system of a steamer and its consort began gradually to displace the sailing vessel and to counteract its effect the owners of sailing vessels frequently employed the tugs to tow them all the way between upper and lower lake ports.

He saw iron supplant wood as a shipbuilding material in the construction of the *Onoko* in 1882 at the *Globe Iron Works*, Cleveland. The *Onoko* was 287 ft. long and 38 ft. beam, and was the largest dead-weight carrier on the lakes for many years. He saw steel supplant iron in ship construction by the building of the *Spokane* for the *Wilson Transit Co.* by the *Globe Iron Works*, Cleveland, in 1886, until now it is the only material used of which to build them. The *Spokane* was 310 ft. long, 38 ft. beam and 24 ft. deep. He saw the one great departure in the construction of the ore carrier made by Alexander McDougall in 1888, when he conceived a form of construction known as the whaleback, and built No. 101 and thirty like it only to discover after all that the type did not embody the points of highest efficiency for ore carriage. He saw how cautious was the growth in the size of the ore carrier, the main dimensions even as late as 1894

being under 300 ft. He saw in 1895 the first of the 400-footers, the *Victory* and the *Zenith* appear, and in 1897 noted that the Bessemer Steamship Co. gave orders for a steel steamer and two consorts larger than anything previously built, the steamer being 475 ft. over all and the barges 450 ft. These dimensions stood until 1900, when Mr. A. B. Wolvin placed an order for four 500-footers. These vessels are the *John W. Gates*, *Wm. Edenborn*, *Isaac L. Ellwood* and *J. J. Hill*. They are called 500-footers because they approach it so nearly, being less than 2 ft. short of 500 ft.

He saw in Mr. Wolvin the boldest experimenter in ship construction, not only in the size of ships but in the method of building them. The unit of construction spacing for an ore ship is the length of the ore car in use on Lake Superior. This car is 24 ft. long. The dock pockets are therefore 12 ft. wide center to center and, therefore, the ship has her hatch openings 24-ft. centers. With these openings she could load from every other pocket and when a series of pockets was emptied, a 12-ft. shift along the dock would put the hatchways in front of another series. Now the human ore handler is wedded to strike and holidays when the pressure on the docks is greatest, and the new type of ship's deck was demanded with opening sufficient to permit the unloading machines to operate all over the interior of the vessel. Mr. Wolvin accordingly built the steamer *James H. Hoyt* in 1902 with nineteen hatches all spaced 12-ft. centers. She took on her cargo of 5,250 tons of ore in the record-breaking time of 30.5 minutes, and unloaded it by means of the Hulett unloading machine in 3 hours and 52 minutes. These records have since been superseded by those obtained on the steamers *Wolvin* and *George W. Perkins*. Mr. Wolvin then went a step further—a considerable one, it must be admitted. He built in 1904 the steamer *Augustus B. Wolvin*, 62 ft. longer than any other ship ever constructed on the lakes. She is 560 ft. over all, 540 ft. keel, 56 ft. beam and 32 ft. deep with thirty-three hatches spaces 12-ft. centers. In constructing the *Wolvin* hold stanchions were dispensed with and a system of girder arches were substituted in their place to support the deck as well as the sides of the ship. This system, first introduced on the *Sahara*, built a few months prior to the *Wolvin*, has since become the accepted mode of modern construction since it leaves the hold entirely free from any obstruction which might interfere with the unloading machines. Another novelty lies in the shape of her cargo hold. This is built in the form of a hopper with sides that slope from her main deck down to the tank top and the ends built on the same slopes. The hopper extends in one continuous length of 409 ft. without bulkheads or divisions of any kind and in width measures at the top 43 ft. and at the bottom 24 ft.

Recent, however, as is the construction of the *Wolvin*, she has already been superseded in size. Mr. Harry Coulby, president and general manager of the Pittsburg Steamship Co., which is the corporate name under which the ships of the United States Steel Corporation are operated on the Great Lakes, placed orders with the American Ship Building Co. for four steamers 9 ft. longer than the *Wolvin*. Their names are *Elbert H. Gary*, *Wm. E. Corey*, *Henry C. Frick* and *George W. Perkins*, and have already broken the cargo record of the Great Lakes, the *Gary* having carried 10,877 tons of ore from Ashland to South Chicago and 12,003 tons from Escanaba to South Chicago, the latter route having no limitation in draught.

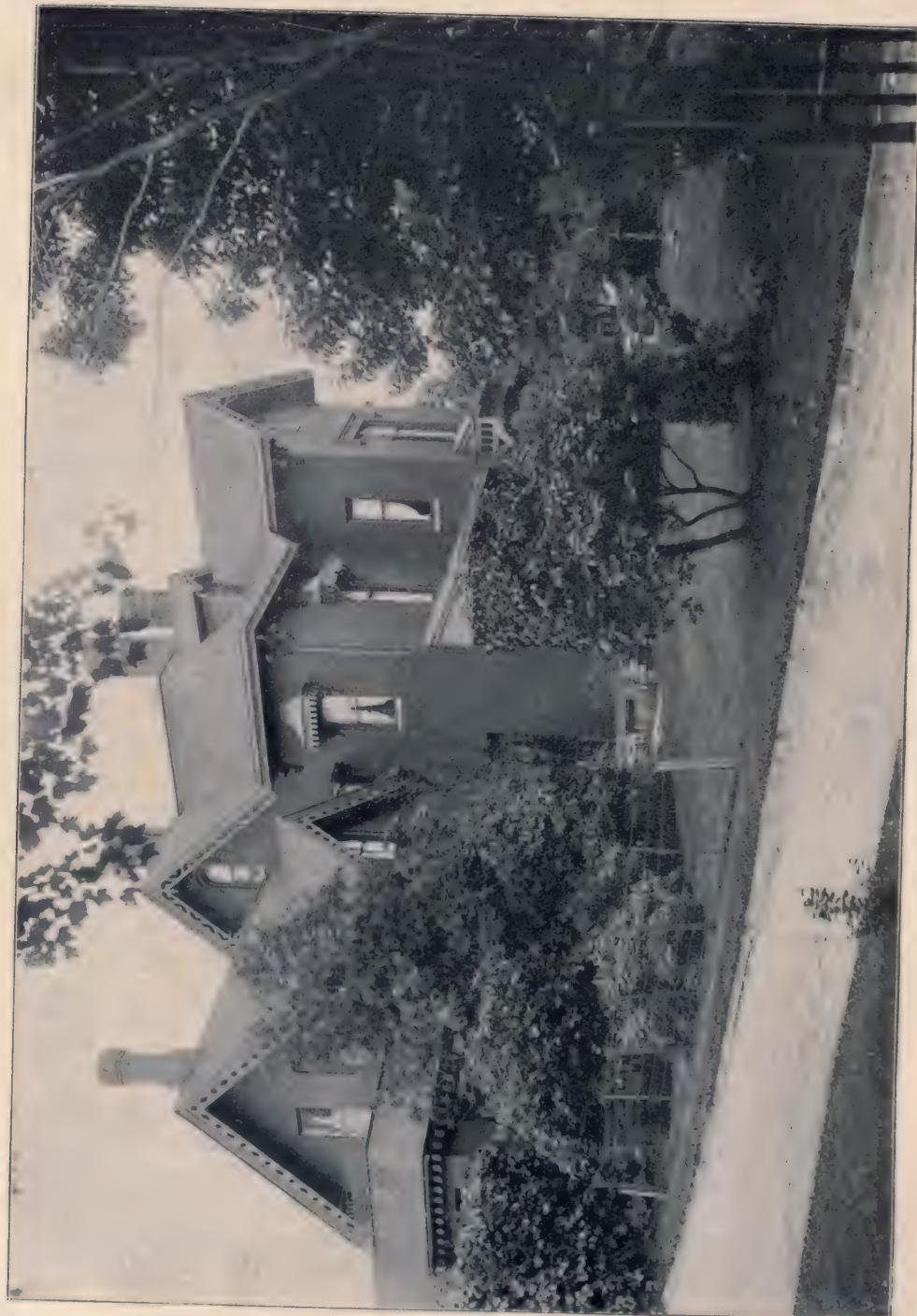
How vivid this recital is by contrast. A single full cargo of one of these steamers represents seven times the movement of ore through the Sault Ste. Marie canal in 1855, and one of these vessels could alone have carried the entire ore commerce of the lakes for a number of years thereafter. Progress has been rapid on the great lakes during the past few years but it has nevertheless been cautious. Even as late as 1897 two big consorts were constructed for a steamer then building. The year 1897 is not so very far in the past, but it is reasonably assured that no one to-day would place an order to build a consort. The highest economy of operation is reached by the single steamer of large carrying capacity and low power. There was justification for the consort system in the days of wooden ship building because a fleet of sailing ships was in existence whose natural destiny in the evolution of trade was that of consort. But it was not economy to build a new vessel for consort purposes. It took the vessel owners a long time to come to the conclusion that it was really expensive business to put machinery of high power in a steamer for the purpose of enabling her to tow a consort. She burned a great deal of fuel, and moreover lost considerable of her own time in port waiting for her consort. The *Elbert H. Gary* has the same engines that the *Manola* had which was built by Pickands, Mather & Co. in 1890. The *Manola* could carry 3,000 tons of ore; the *Gary* over 10,000 tons.

Of such a character as the *Gary* is the steamer *Peter White*, which will take her place among the great steamers of the lakes shortly after this book is off the press. She is now being built for the Cleveland Co.—the same old Cleveland Co., changed in name a bit now but not a whit in its fine character—by the Great Lakes Engineering Works of Detroit, and is 524 ft. over all, 504 ft. keel, 54 ft. beam and 30 ft. deep. She is of large carrying capacity and low power and represents the highest type of modern ore freighter. Her career, whatever it may be, can be no more honorable than her name.

CONCLUSION.

IT was said of George Washington that there was something about the man that was finer than anything he ever said or did, and probably those who read this sketch may be searching through it for some justification for the great hold that Peter White has upon the affections. Splendid as his work has been for the betterment of social conditions there is something about the man that is higher and better than his work.

We will take leave of him at his camp—the kingly side of him. The camp is twenty-four miles from Marquette and four miles from the railroad. Do you think that Peter White rides from the railroad to the camp? Not a bit of it. He walks, walks with the quick, impulsive, springy, forward movement of the second Frederick and acts as though he were tireless, as indeed he probably is. The camp is 800 acres in extent and consists of virgin forest with river, swamp and lake and a little clearing in the center. The clearing is at the side of a maple grove and in it stands the camp dwelling, constructed most picturesquely of logs. The clearing is devoted to a garden where all fruits and vegetables that the peninsula will raise are cultivated. The river, called Whitefish river—probably because there are no whitefish in it—flows past the door. The whitefish is a dainty feeder and loves clear and sparkling water. The water of the Whitefish river, like many of the little rivers in the peninsula, is stained by the roots of trees and shrubs through which it passes. But if there are no whitefish in the river there are far greater attractions in the camp. Free, wild and unfenced, as it is, it is the natural haunt of the deer. They are very abundant and in summer are very tame, and one may see them eating at a distance; but in fall and winter they are very wary, and it is only a wild crash through the bushes that notifies one that he has encroached too closely to their presence. There are wolves, too, far more plenty than is comfortable for the defenseless classes of wild animals, and Peter White and his companions go on an annual expedition of extermination. The camp is filled with the trophies of the chase. His son-in-law, George Shiras, son of Justice Shiras of the United States Supreme Court, who married the only



PETER WHITE'S HOME IN MARQUETTE.

living child of Peter White, hunts with the camera and has made some wonderful photos of deer at the camp by flashlight at midnight. These photos took the world's prize at the Paris exposition. He adjusted a headlight to his canoe and paddling silently towards shore was enabled, after innumerable attempts, to photograph the deer by flashlight. While the slightest noise will frighten deer the mere presence of light does not seem to concern them. It is probably because instinct has taught them to regard it as some phenomenon of nature. The boom and crash of a great boulder down the side of a hill will scarcely make a deer look up from its grazing, while the faintest click of artificial sound will send them flying in terror. It will be noted that in the photograph reproduced herewith the picture was taken before the doe had time to raise its head; the click of the mechanism of the camera in the unrecorded part of a second thereafter sent the frightened creature flying through the woods.

One day Peter White's butler, Charles, in walking from the railroad to the camp with his employer noted a little girl, about eight years old, limping about on a crutch with one leg drawn up and the foot about two inches from the ground. He had seen the little girl limping about in that fashion during the preceding summer.

"Isn't it too bad," said he, "that that little girl should have to limp all her life like that. There is probably something the matter with her knee that prevents her straightening her leg."

"Hey," said Peter White.

Charles repeated his observation, together with the fact that he had seen her in that condition during the previous year.

"Go to the house at once and see what's the matter with her," commanded Mr. White. "If her folks can't afford to pay for medical treatment I will."

The little one was taken to St. Luke's hospital in Marquette, where it was found that she was suffering from a hip disease which prevented her from straightening her leg and was the result of an injury received over a year before. The physicians stated that had it been attended to at once it could have been remedied within a week, but that now bones would have to be broken and pulled into place through pressure, and that months would be required for the cure. The operation was performed and the child has now two sound limbs.

Peter White as a raconteur is unexcelled. His French-Canadian stories are of particular excellence. On the annual runs of the Marquette Snow Shoe club, of which he is president, to some familiar spot the members



PHOTOGRAPHING DEER, AT NIGHT BY FLASHLIGHT AT PETER WHITE'S CAMP.

Copyright by George Shiras.

gather round the wood fire after supper to listen to Peter White's dialect stories—in fact the tumult can never be stilled until he has related dozens of them. Whenever he visits the legislature at Lansing the house goes into committee of the whole and he is invited to relate the adventures of his first trip to that house, consuming days and nights in the journey, when the only voices he heard were those of the wild beasts of the thicket.

It must be a source of peculiar pleasure to live to witness the wondrous evidences of change and progress in the wild districts which his rare recollection may any day conjure up to amuse himself and delight his friends. Gifted with rare powers of delineation, conversant with the tongues of the Indian and the Frenchman, his memory stored with volumes of reminiscence and story, his activities embracing church and state and his heart humanity, it is not strange that the name of Peter White is known from ocean to ocean.

Though he belongs in the United States senate as a fine type of American citizen, we will leave him at his camp, sitting before a crackling fire of wood and telling stories to a little circle of companions. He has lived an upright life and he views the past with satisfaction and the future with resignation.

"The way to riches is through hard work and thrift," said he.

It is not always the pioneer who prospers, but this pioneer wrested a fortune from the frontier and is putting it to honorable use. There are innumerable legends concerning him. Some think that he is French-Canadian and that his name is Pierre le Blanc; some think he is an Indian and that his real name is Shob-wau-way; and some believe that he is the reincarnation of Pere Marquette. But he is a simple American gentleman, seventy-five years old, and sturdy as an oak.



THE HONORABLE PETER WHITE
AS HE IS TODAY.

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Author Williams, R. D.

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